

C# Questions & Answers – Integer Data Types

1. How many Bytes are stored by 'Long' Data type in C# .net?

- a) 8
- b) 4
- c) 2
- d) 1

View Answer

Answer: a

Explanation: 'Long' is the data type keyword used for storing data of unlimited length so by definition its size is always maximum i.e 8.

2. Choose ".NET class" name from which data type "UInt" is derived ?

- a) System.Int16
- b) System.UInt32
- c) System.UInt64
- d) System.UInt16

View Answer

Answer: b

Explanation: By Definition class assigned to

- a) System.Int16 = short.
 - b) System.UInt32 = UInt.
 - c) System.UInt64 = ULong.
 - d) System.UInt16 = UShort.
-

3. Correct Declaration of Values to variables 'a' and 'b'?

- a) int a = 32, b = 40.6;
- b) int a = 42; b = 40;
- c) int a = 32; int b = 40;
- d) int a = b = 42;

View Answer

Answer: c

Explanation: a) Although, declaration of 'b' and 'a' are correct but initialization of value to 'b' should be 'int' data type not float.

- b) Missing declaration type of 'b'.
 - c) correctly declared data types 'a' and 'b'.
 - d) 'b' can't be assigned values before declaration.
-

- a) 'k' should not be declared constant
- b) Expression assigned to 'k' should be constant in nature
- c) Expression (m * k) is invalid
- d) 'm' is declared in invalid format

View Answer

Answer: b

Explanation: 'k' should be declared as `const int k = 10/5 * 100*10` i.e only constant values should be assigned to a constant.

Output:

Error 1 - The expression being assigned to 'k' must be constant.

5. Arrange the following data type in order of increasing magnitude sbyte, short, long, int.

- a) long < short < int < sbyte
- b) sbyte < short < int < long
- c) short < sbyte < int < long

d) short < int < sbyte < long

View Answer

Answer: b

Explanation: By definition.

6. Which data type should be more preferred for storing a simple number like 35 to improve execution speed of a program?

a) sbyte

b) short

c) int

d) long

View Answer

Answer: a

Explanation: Wider data type like int, long takes more time for manipulation of a program.

7. Which Conversion function of 'Convert.ToInt32()' and 'Int32.Parse()' is efficient?

1) Int32.Parse() is only used for strings and throws argument exception for null string

2) Convert.ToInt32() used for data types and returns directly '0' for null string

a) 2

b) Both 1,2

c) 1

d) None of the mentioned

View Answer

Answer: a

Explanation: Convenient for every data type so mostly preferred.

8. Correct way to assign values to variable 'c' when int a=12, float b=3.5, int c;

a) c = a + b;

b) c = a + int(float(b));

c) c = a + convert.ToInt32(b);

d) c = int(a + b);

View Answer

Answer: c

Explanation: None.

View Answer

Answer: c

Explanation: Usage of typecasting operation. Separately check each expression taking typecast operations in concern.

Output :

74.

a) Yes

b) No

View Answer

Answer: No

Explanation:

Output –

1) 5.

2) 6.

11. Default Type of number without decimal is?

- a) Long Int
- b) Unsigned Long
- c) Int
- d) Unsigned Int

View Answer

Answer: c

Explanation: By definition.

- a) 23.453
- b) 22
- c) 23
- d) 22.453

View Answer

Answer: c

Explanation: The two data type 'float' and 'long' after arithmetic operation completely converted to nearest whole number 23.

Output :

23.

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C# Questions & Answers – Char Types and String Literals

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

```
1. static void Main(string[] args)
2. {
3.     var days = "MTWTFSS";
4.     var daysArray = days.ToCharArray().Cast<string>().ToArray();
5.     for (var i = 0; i < daysArray.Length; i++)
6.     {
7.         switch (daysArray[i])
8.         {
9.             case "M":
10.                daysArray[i] = "Monday";
11.                break;
12.             case "T":
13.                daysArray[i] = "Tuesday";
14.                break;
15.             case "W":
16.                daysArray[i] = "Wednesday";
17.                break;
18.             case "R":
19.                daysArray[i] = "Thursday";
20.                break;
21.             case "F":
22.                daysArray[i] = "Friday";
23.                break;
24.             case "S":
25.                daysArray[i] = "Saturday";
26.                break;
27.             case "U":
28.                daysArray[i] = "Sunday";
29.                break;
30.         }
```

```

31.     }

32.     daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];

33.     Console.WriteLine(string.Join(", ", daysArray));

34. }

```

1. What is the Size of 'Char' datatype?

- a) 8 bit
- b) 12 bit
- c) 16 bit
- d) 20 bit

View Answer

Answer: c

Explanation: None.

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

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20.                 break;

21.             case "F":

22.                 daysArray[i] = "Friday";

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23.         break;
24.     case "S":
25.         daysArray[i] = "Saturday";
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28.         daysArray[i] = "Sunday";
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31. }
32. daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33. Console.WriteLine(string.Join(", ", daysArray));
34. }

```

- a) I am a human bein c
- b) I am a human being
- c) I am a human being c
- d) I am a human bein

View Answer

Answer: b

Explanation: 'g' is stored in character variable 'c' which later on is converted to string using method Convert.ToString() and hence appended at last of the string in s1.

Output:

I am a human being.

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33. Console.WriteLine(string.Join(", ", daysArray));
34. }

```

- a) var daysArray = new List();
b) var daysArray = days.Select(c => dayMapping[c]).ToArray();
c) var daysArray = days.ToCharArray().Select(c => c.ToString()).ToArray();
d) None of above mentioned.

View Answer

Answer: c.

Explanation: The problem arises due to cast conversion from "char" to "string" as one is not inherited from other. So, quick way of conversion is just using Char.ToString().

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```

a) Monday ,Tuesday ,Wednesday ,Friday ,Saturday ,Sunday

b) Monday

Tuesday

Wednesday

Friday

Sunday

c) Monday

Tuesday

Wednesday

Friday

Saturday

d) Monday ,Tuesday ,Wednesday ,Friday ,Saturday

View Answer

Answer: c.

Explanation:None.

Output:

```
Monday
Tuesday
Wednesday
Friday
Saturday
```

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```

5. Select the correct differences between char and varchar data types?

1. varchar is non unicode and char is unicode character data type
2. char is 'n' bytes whereas varchar is actual length in bytes of data entered in terms of storage size
3. varchar is variable in length and char is the fixed length string
4. For varchar, if a string is less than the maximum length then it is stored in verbatim without any extra characters while for char if a string is less than the set length it is padded with extra characters to equalize its length to given length

a) 1, 3, 4

b) 2, 3, 4

c) 1, 2, 4

d) 3, 4

View Answer

Answer: d.

Explanation: By definition.

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```

6. Which is the String method used to compare two strings with each other ?

- a) Compare To()
- b) Compare()
- c) Copy()
- d) ConCat()

View Answer

Answer: b

Explanation: Compare() used to compare two strings by taking length of strings in considerations.

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```

- a) DelhJaipuri
- b) Delhi Jaipur
- c) Delhi
- d) DelhiJaipur

View Answer

Answer: d.

Explanation: Insert method() of string class used to join two strings s1 and s2.

Output :

DelhiJaipur

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```

8. For two strings s1 and s2 to be equal, which is the correct way to find if the contents of two strings are equal ?

- a) if(s1 = s2)
- b) int c;
- c = s1.CompareTo(s2);
- c) if (s1 is s2)
- d) if(strcmp(s1, s2))

View Answer

Answer : b

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```

Enter a String:BOMBAY.

- a) BOMBA
- b) YABMOB
- c) BOMAYB
- d) YABMO

View Answer

Answer : b.

Explanation: Explain the concept of reversal of string without using any string inbuilt method but using while loop conditions.

Output:

YABMOB

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```

d) None of the mentioned

View Answer

Answer : c.

Explanation: None.

Output:

```

public static string ConvertStringToHex (String input,  System.Text.Encoding encoding)
{
    {
        Byte[] stringBytes = encoding.GetBytes(input);
        StringBuilder sbBytes = new StringBuilder(stringBytes.Length * 2);
        foreach (byte b in stringBytes)
        {
            sbBytes.AppendFormat("{0:X2}",  b);
        }
        Console.WriteLine(sbBytes.ToString()); //sbBytes.ToString();
        return sbBytes.ToString();
    }
}

```

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```

d) None of the mentioned

View Answer

Answer : b

Output:

```
public static string ConvertHexToString(String hexInput, System.Text.Encoding encoding)
{
    int numberChars = hexInput.Length;
    byte[] bytes = new byte[numberChars / 2];
    for (int i = 0; i < numberChars; i += 2)
    {
        bytes[i / 2] = Convert.ToByte(hexInput.Substring(i, 2), 16);
    }
    return encoding.GetString(bytes);
}
```

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```

- a) AM BEST
- b) I AM BES
- c) BEST
- d) I AM

View Answer

Answer : c

Explanation: Substring() of string class used to extract substrings from given string. In the given substring condition, it extracts a substring beginning at 5th position and ending at 4th position.

Output:

BEST.

3. Given is the code of days(example: "MTWTFSS") which I need to split and hence create a list of days of week in strings(example: "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

```

1. static void Main(string[] args)
2. {
3.     var days = "MTWTFSS";
4.     var daysArray = days.ToCharArray().Cast<string>().ToArray();
5.     for (var i = 0; i < daysArray.Length; i++)
6.     {
7.         switch (daysArray[i])
8.         {
9.             case "M":
10.                daysArray[i] = "Monday";
11.                break;
12.             case "T":
13.                daysArray[i] = "Tuesday";
14.                break;
15.             case "W":

```

```

16.         daysArray[i] = "Wednesday";
17.         break;
18.     case "R":
19.         daysArray[i] = "Thursday";
20.         break;
21.     case "F":
22.         daysArray[i] = "Friday";
23.         break;
24.     case "S":
25.         daysArray[i] = "Saturday";
26.         break;
27.     case "U":
28.         daysArray[i] = "Sunday";
29.         break;
30.     }
31. }
32. daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33. Console.WriteLine(string.Join(", ", daysArray));
34. }

```

13. Correct statement about strings are ?

- a) a string is created on the stack
- b) a string is primitive in nature
- c) a string created on heap
- d) created of string on a stack or on a heap depends on the length of the string

View Answer

Answer : c

Explanation: None.

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

```

1. static void Main(string[] args)
2. {
3.     var days = "MTWTFSS";
4.     var daysArray = days.ToCharArray().Cast<string>().ToArray();
5.     for (var i = 0; i < daysArray.Length; i++)
6.     {
7.         switch (daysArray[i])

```

```
8.      {
9.      case "M":
10.         daysArray[i] = "Monday";
11.         break;
12.      case "T":
13.         daysArray[i] = "Tuesday";
14.         break;
15.      case "W":
16.         daysArray[i] = "Wednesday";
17.         break;
18.      case "R":
19.         daysArray[i] = "Thursday";
20.         break;
21.      case "F":
22.         daysArray[i] = "Friday";
23.         break;
24.      case "S":
25.         daysArray[i] = "Saturday";
26.         break;
27.      case "U":
28.         daysArray[i] = "Sunday";
29.         break;
30.      }
31.  }
32.  daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33.  Console.WriteLine(string.Join(", ", daysArray));
34. }
```

14. Verbatim string literal is better used for ?

- a) Convenience and better readability of strings when string text consist of backlash characters
- b) Used to initialize multi line strings
- c) To embed a quotation mark by using double quotation marks inside a verbatim string
- d) All of the mentioned

View Answer

Answer : d

Explanation: By definition.

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is

the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

```
1. static void Main(string[] args)
2. {
3.     var days = "MTWTFSS";
4.     var daysArray = days.ToCharArray().Cast<string>().ToArray();
5.     for (var i = 0; i < daysArray.Length; i++)
6.     {
7.         switch (daysArray[i])
8.         {
9.             case "M":
10.                daysArray[i] = "Monday";
11.                break;
12.             case "T":
13.                daysArray[i] = "Tuesday";
14.                break;
15.             case "W":
16.                daysArray[i] = "Wednesday";
17.                break;
18.             case "R":
19.                daysArray[i] = "Thursday";
20.                break;
21.             case "F":
22.                daysArray[i] = "Friday";
23.                break;
24.             case "S":
25.                daysArray[i] = "Saturday";
26.                break;
27.             case "U":
28.                daysArray[i] = "Sunday";
29.                break;
30.         }
31.     }
32.     daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33.     Console.WriteLine(string.Join(", ", daysArray));
34. }
```

15. Why strings are of reference type in C#.NET ?

- a) To create string on stack
- b) To reduce size of string
- c) To overcome problem of stackoverflow
- d) None of the mentioned

View Answer

Answer : b

Explanation: The problem of stack overflow very likely to occur since transport protocol used on web these days are 'HTTP' and data standard as 'XML'. Hence, both make use of strings extensively which will result in stack overflow problem. So, to avoid this situation it is good idea to make strings a reference type and hence create it on heap.

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C# Questions & Answers – Initialization of Variables

a) 11, 10

b) 16, 10

c) 16, 11

d) 15, 11

View Answer

Answer: c

Explanation: $c = 6 + 10 = 16$ and $b = 11$ as we know ++operator increments and then executes similarly operator++ executes and then increments.

Output:

16, 11

2. Storage location used by computer memory to store data for usage by an application is ?

a) Pointers

b) Constants

c) Variable

d) None of the mentioned

View Answer

Answer: c

Explanation: 'Variables' are essential locations in memory of computer that are reserved for storing data used by an application. Each variable is given a name by programmer and hence assigned a value. The name assigned to variable then used in C# code to access value assigned to variable.

3. DIFFERENCE BETWEEN KEYWORDS 'VAR' AND 'DYNAMIC' ?

a) 'Var' is introduced in C# (3.0) and 'Dynamic' is introduced in C# (4.0)

b) 'Var' is a type of variable where declaration is done at compile time by compiler while 'Dynamic' declaration is achieved at runtime by compiler

c) For 'Var' Error is caught at compile time and for 'Dynamic' Error is caught at runtime

d) All of the mentioned

View Answer

Answer: d

a) True for (1);False for (2)

b) True for (2);False for (1)

c) Both (1) and (2) are equivalents

d) Both (1) and (2) are not equivalents

View Answer

Answer: c.

Explanation: When we create a type in 'C#', It automatically gets filled with padded zeros. For the case of class (reference types) this equates to a null pointer. Hence, for code 1) Both variable values are equivalent to each other. Similarly, for code 2) i.e for value type (including int/float/double etc.), the type is passed with zeros. Hence, they are equivalent.

a) $b = 10$, $a = 5$

b) $b = 15$, $a = 5$

c) $a = 15$, $b = 10$

d) $a = 10$, $b = 10$

View Answer

Answer: c

Explanation: b is assigned 10 and after that its value is added with 5 and then saved in a, so a will be 15.

- a) 1, 97
- b) 65, 97
- c) 65, 97
- d) 97, 1

View Answer

Answer: c

Explanation: ASCII value of character 'a' is 65 and ASCII value of string "a" is 97.

Output:

65, 97

- a) Dr.Gupta
- b) Good Morning
- c) Good Morning Dr.Gupta
- d) Good Morning name

View Answer

Answer: c.

Explanation: How to initialize a string variable and concatenate string using '+' operator.

Output:

Good Morning Dr.Gupta.

- a) -7, 10
- b) -5, 11
- c) -6, 11
- d) 15, 11

View Answer

Answer: c

Explanation: None.

Output:

-6, 11.

- a) 600, 720
- b) Compile time error.
- c) 25, 30
- d) 5, 6

View Answer

Answer: b

Explanation: The left hand side of an assignment must be a variable,property or indexer i.e for both 'a' and 'b'

- a) He is playing in a grou
- b) .ground a in playing is He
- c) .dnuorg a ni gniyalp si eH
- d) He playing a

View Answer

Answer: c

Explanation: Reversal of array of strings character by character.

Output:

.dnuorg a ni gniyalp si eH

C# Questions & Answers – Scope and Lifetime of Variables

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console.WriteLine(i);
11.        Console.ReadLine();
12.    }
13. }
```

Scope declaration:

- a) m = static variable, n = local variable, x = output parameter, y = reference parameter, j = instance variable, z=output parameter, a[0]= array element
- b) m = static variable, n = instance variable, x = value parameter, y = reference parameter, j = local variable, z=output parameter , a[0] = array element
- c) m = static variable, n = instance variable, x = reference parameter, y = value parameter, j = local variable, z=output parameter, a[0] = array element
- d) m = local variable, n = instance variable, x = reference parameter, y = value parameter, j = static variable, z=output parameter, a[0] = array element

View Answer

Answer: b

Explanation: By definition of scope of variables.

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
```

```

10.         Console. WriteLine(i);
11.         Console. ReadLine();
12.     }
13. }

```

- a) 0, 1, 2, 3, 4, 5
- b) 0, 1, 2, 3
- c) 0, 1, 2, 3, 4
- d) 0, 0, 0, 0, 0

View Answer

Answer: c

Explanation: Scope of 'i' is alive within block in which it is declared. So, change in value of i within for loop is reserved until condition of for loop is executing.

Output:

0, 1, 2, 3, 4

3. Correct Output for the given set of programming code is :

```

1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console. WriteLine(i);
11.        Console. ReadLine();
12.    }
13. }

```

- a) 0, 1, 2, 3, 4, 5
- b) 0, 1, 2, 3, 4
- c) 5
- d) 4

View Answer

Answer: c

Explanation: Since final console statement is outside for loop. So, result will be printed in final values only.

Output:

5

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console. WriteLine(i);
11.        Console. ReadLine();
12.    }
13. }
```

a) 0, 1, 2, 3, 4, 5, 6

b) 0, 1, 2, 3, 4, 5

c) 0, 1, 2, 3, 4

d) 0, 1, 2, 3

View Answer

Answer: b

Explanation: None.

Output:

0, 1, 2, 3, 4, 5

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console. WriteLine(i);
11.        Console. ReadLine();
12.    }
13. }
```

- a) 0, 1, 6, 18, 40
- b) 0, 1, 5, 20, 30
- c) Compile time error
- d) 0, 1, 2, 3, 4, 5

View Answer

Answer: c

Explanation: The scope of `j` is local in nature it cannot be extended outside the block in which it is defined.

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console.WriteLine(i);
11.        Console.ReadLine();
12.    }
13. }
```

6. Scope of variable is related to definition of variable as:

- 1. Region of code within which variable value is valid and hence can be accessed.
 - 2. No, relation with region where variable is declared its value is valid in entire scope.
- a) a
 - b) b
 - c) a, b
 - d) None of the mentioned

View Answer

Answer: a

Explanation: Scope of variable is the area or region within which variable is declared and hence initialized values of different kind. Based, on which operations of different kinds are carried out on that variable declared within that scope. Its value is preserved until and unless scope of that block ({ }) is not expired because as soon as scope gets over. Hence, variable value gets expired. Hence, it's inaccessible after it.

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
```

```

6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console. WriteLine(i);
11.        Console. ReadLine();
12.    }
13. }

```

- a) 5, 10, 15, 20
- b) 0, 5, 10, 20
- c) Compile time error
- d) 0, 1, 2, 3, 4

View Answer

Answer: c

Explanation: The compiler cannot interpret between variable 'i' declared as an instance variable outside for loop block and variable 'i' declared as a local variable inside the for loop context. The instance variable 'i' defined before the for loop is still in scope inside for loop and hence goes out of scope only when main() is finished executing. The local variable 'i' declared inside for loop had scope limited within blocks({ }) in which it is declared and hence creates name conflict with instance variable 'i' so, compiler is unable to distinguish between both. When instance variable 'i' is removed away. The program runs accurately producing the output as "0, 200, 400, 600, 800", this explains the concept of scope deceleration.

3. Correct Output for the given set of programming code is :

```

1.  class Program
2.  {
3.      static void Main(string[] args)
4.      {
5.          int i;
6.          for ( i = 0; i < 5; i++)
7.          {
8.
9.          }
10.         Console. WriteLine(i);
11.         Console. ReadLine();
12.     }
13. }

```

View Answer

Answer: a

Explanation: By definition.

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console. WriteLine(i);
11.        Console. ReadLine();
12.    }
13. }
```

a) 15, 15

b) 10, 5

c) 15, 5

d) 10, 15

View Answer

Answer: c

Explanation: j='5' will return value of 5 stored it in variable 'j' but value assigned to variable 'i' will be first value of 'j' and hence increment a value of '10' in that value of 'j' i.e 15.

Output:

15, 5

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console. WriteLine(i);
11.        Console. ReadLine();
12.    }
13. }
```

10. Choose effective differences between 'Boxing' and 'Unboxing'.

- a) 'Boxing' is the process of converting a value type to the reference type and 'Unboxing' is the process of converting reference to value type
- b) 'Boxing' is the process of converting a reference type to value type and 'Unboxing' is the process of converting value type to reference type
- c) In 'Boxing' we need explicit conversion and in 'Unboxing' we need implicit conversion
- d) Both 'Boxing' and 'Unboxing' we need implicit conversion

View Answer

Answer: a

Explanation: By definition.

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console.WriteLine(i);
11.        Console.ReadLine();
12.    }
13. }
```

11. Select differences between reference type and value type :

- 1. Memory allocated to 'Value type' is from heap and reference type is from 'System. ValueType'
- 2. Memory allocated to 'Value type' is from 'System. ValueType' and reference type is from 'Heap'
- 3. Structures, enumerated types derived from 'System. ValueType' are created on stack, hence known as ValueType and all 'classes' are reference type because values are stored on heap

- a) 1, 3
- b) 2, 3
- c) 1, 2, 3
- d) 1

View Answer

Answer: b

Explanation: By definition.

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
```



```
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console. WriteLine(i);
11.        Console. ReadLine();
12.    }
13. }
```

- a) 123, 123
- b) 456, 123
- c) 456, 456
- d) 123, 456

View Answer

Answer: b

Explanation: The concept of boxing is implemented here. The variable 'i' of 'int' type is boxed using variable 'o' of object type and hence value is stored inside it and is initialized to the object variable 'o'. Next, variable 'i' is again initialized with some value overriding it's previous stored value.

Output:

456, 123

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console. WriteLine(i);
11.        Console. ReadLine();
12.    }
13. }
```

- a) 546, 0
- b) 546, 546
- c) 546, 70
- d) 70, 546

View Answer

Answer: c

Explanation: The concept of 'unboxing' is implemented here . To 'unbox' an object back to value type, we have to do it explicitly as "`int n = (int) o`".

Output:

546, 70

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C# Questions & Answers –Type Conversion in Expressions

1. What is the need for 'Conversion of data type' in C#?

- a) To store a value of one data type into a variable of another data type
- b) To get desired data
- c) To prevent situations of runtime error during change or conversion of data type
- d) None of the mentioned

View Answer

Answer: c

Explanation: By Definition.

2. Types of 'Data Conversion' in C#?

- a) Implicit Conversion
- b) Explicit Conversion
- c) Implicit Conversion and Explicit Conversion
- d) None of the mentioned

View Answer

Answer: b

Explanation: By Definition.

3. 'Implicit Conversion' follows the order of conversion as per compatibility of data type as :

- a) float < char < int
- b) char < int < float
- c) int < char < float
- d) float < int < char

View Answer

Answer: b

Explanation: None.

- a) Compiler will generate runtime error
- b) Conversion is implicit type, no error generation
- c) Specifying data type for conversion externally will solve the problem
- d) None of the mentioned

View Answer

Answer: b

Explanation: Since, conversion of data type is implicit type as 'int' is a subset of 'longtype' hence no need to explicitly convert data from one type to another. Compiler will automatically do conversion.

Output: Total is:

70000.

5. The subset of 'int' data type is :

- a) long, ulong, ushort
- b) long, ulong, uint
- c) long, float, double
- d) long, float, ushort

View Answer

Answer: c

Explanation: By definition.

6. Type of Conversion in which compiler is unable to convert the data type implicitly is?

- a) ushort to long
- b) int to uint
- c) ushort to long
- d) byte to decimal

View Answer

Answer: b

Explanation: 'int' is 32 bit signed integer whereas 'uint' is 32 bit unsigned integer. Range of int is larger than uint. So, the compiler cannot implicitly convert from larger data type to smaller data type.

7. Disadvantages of Explicit Conversion are?

- a) Makes program memory heavier
- b) Results in loss of data
- c) Potentially Unsafe
- d) None of the mentioned

View Answer

Answer: b

Explanation: By definition.

- a) Compiler will generate runtime error
- b) Conversion is explicit type
- c) Compiler will urge for conversion from 'integer' to 'character' data type
- d) None of the mentioned

View Answer

Answer: b

Explanation: Since, given conversion is of explicit type as one data type is in integer and other is in 'char'. Compiler is needed to make a clear distinction between both type of data types and hence, explicitly one need to specify data type as compiler is unable to make automatic conversion.

Output :

advertisement

L.

- a) 2.000
- b) 2.910
- c) 2.928
- d) 3.000

View Answer

Answer: c

Explanation: None.

Output :

```
sum = 2.928698.
```

- a) c = a, b = c
- b) a = c, b = a
- c) b = a, c = a
- d) All of the mentioned

View Answer

Answer: a

Explanation: Conversion of data type from 'int' to 'double' is implicit in nature for 'c = a' as int is subset of double but same is not applicable for

'b = c' as 'c' had wider scope of data range then 'b' so explicit conversion is needed.

Output :

Error 1: Can not implicitly convert type 'long' to 'int'. An explicit conversion exists (are you missing a c

Error 2: Cannot implicitly convert type 'double' to 'long'. An explicit conversion exists (are you missing a

Correct solution :

```
static void Main(string[] args)
{
    int a = 22;
    long b = 44;
    double c = 1.406;
    b = a;
    c = a;
    a = (int)b;
    b = (long)c;
}
```

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C# Questions & Answers – Arithmetic Operators

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * (a + c);
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10. }
```

- a) 106
- b) 104.789
- c) 105.8546
- d) 103.45

View Answer

Answer: c

Explanation: The first expression evaluated is 'b+a' as both are combined. Next the expression is multiplied by operand 'a' i.e a (b+a) the whole result of numerator is combined and divided by denominator expression (a – b).

Output:

```
result is : 105.8546.
```

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * (a + c);
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10. }
```

- a) 92
- b) 89
- c) 90
- d) 88

View Answer

Answer: c

Explanation: The basic evaluation process includes two left to right passes through the expression. During first pass, the high priority operators

are applied and during second pass, the low priority operators are applied as they are encountered.

First pass :
 step 1 : $x = 90 - 15 / 3 + 3 * 2 - 1$ (15 / 3 evaluated)
 step 2 : $x = 90 - 5 + 3 * 2 - 1$
 step 3 : $x = 90 - 5 + 3 * 2 - 1$ (3 * 2 is evaluated)
 step 4 : $x = 90 - 5 + 6 - 1$
 Second pass :
 step 5 : $x = 85 + 6 - 1$ (90 - 5 is evaluated)
 step 6 : $x = 91 - 1$ (85 + 6 is evaluated)
 step 7 : $x = 90$ (91 - 1 is evaluated)
 Output : 90.

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * (a + c);
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10. }
```

- a) 78
- b) -84
- c) 80
- d) 98

View Answer

Answer: b

Explanation: Whenever the parentheses are used, the expressions within parentheses assume higher priority. If two or more sets of parentheses appear one after another as shown above, the expression contained on the left side is evaluated first and the right-hand side last.

First pass:
 Step 1: $80 - 15 / (3 * 2) * (80 + 2)$
 Step 2: $80 - 15 / 6 * 82$ (3 * 2 evaluated first and (80 + 2) evaluated later)
 Second pass:
 Step 3: $80 - 2 * 82$
 Step 4: $80 - 164$
 Third pass:
 Step 5: -84. (80 - 164 is evaluated)
 Output : -84 .

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * (a + c);
```

8. `Console.WriteLine(x);`

9. `Console.ReadLine();`

10. `}`

4. Correct order of priorities are :

a) `'/' > '%' > '*' > '+'`

b) `'/' > '*' > '%' > '+'`

c) `'*' > '/' > '%' > '+'`

d) `'%' > '*' > '/' > '+'`

View Answer

Answer: c

Explanation: By definition.

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * (a + c);
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10. }
```

a) -4 -3 -2

b) -6 -4 -1

c) -2 -2 -2

d) -4 -4 -4

View Answer

Answer: c

Explanation:

```
Here i = 0 , j = 1.
      k = 1 - 3 ( j++ = 2 and ++j = 3 )
      k = -2.
      i = 1 , j = 3.
      k = 3 - 5 ( j++ = 4 and ++j = 5 )
      k = -2.
      i = 2 , j = 5.
      k = 5 - 7 ( j++ = 6 and ++j = 7 )
      k = -2.
```

Output : -2 , -2 , -2.

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
```



```

5.      b = 15;
6.      c = 2;
7.      x = a - b / (3 * c) * (a + c);
8.      Console.WriteLine(x);
9.      Console.ReadLine();
10.    }

```

- a) My Name
b) My nAme
c) My name
d) Myname
View Answer

Answer: c

Explanation: Solving the expression $l = (b * c) + (r * e) + 10$. While from left to right the parentheses are given preference first.

Step 1 : $b * c$ is evaluated first inside first parentheses.
Step 2 : $r * e$ is evaluated second on right side of first addition symbol .
Step 3 : After evaluating both parentheses 10 is added to value of both.

Output : My name.

```

1.  static void Main(string[] args)
2.  {
3.      int a, b, c, x;
4.      a = 80;
5.      b = 15;
6.      c = 2;
7.      x = a - b / (3 * c) * (a + c);
8.      Console.WriteLine(x);
9.      Console.ReadLine();
10. }

```

- a) A
AA
AAA
AAAA
b) A
AB
ABC
ABCD
c) A
AA
AAA
AAAA
AAAAA
d) A
BC
DEF
DEFG

View Answer

Answer: c

Explanation: Solving the expression for value of 'z' as 65. With each passage of loop value number of 'z' increases for each row as

```
Row 1: A
Row 2: AA
      -
      -
Row 5: AAAAA
```

```
Output : A
        AA
        AAA
        AAAA
        AAAAA
```

```
1.  static void Main(string[] args)
2.  {
3.      int a, b, c, x;
4.      a = 80;
5.      b = 15;
6.      c = 2;
7.      x = a - b / (3 * c) * (a + c);
8.      Console.WriteLine(x);
9.      Console.ReadLine();
10. }
```

a) A
AA
AAA
AAAA
AAAAA

b) A
AB
ABC
ABCD
ABCDE

c) A
BC
DEF
GHIJ
KLMNO

d) A
AB
BC
BCD
BCDE

View Answer

Answer: c

Explanation: Solving expression 'z' value is 65. Before going inside first loop

```
Step 1: c = 1, n = 5
        k = 1, k <= 1. (as c = 1)
```

z = 65 converted to 'A' as ascii value of 'A' is 65.

z++ increment for next loop condition by '1' as 66.

Row 1: A

Step 2: c = 2, n = 5

k = 2, k <= 2. (as c = 2)

z = 66 from step 1 converted value of 66 is 'B'. Since, k <= 2

loop will again loop to second value after 66 which is 67 as z is

incremented from 66 to +1 as '67'. so, converting ascii value of 67 to character as 'C'.

Row 2: B C

Similarly,

Step 3:

Row 3: D E F

Step 4:

Row 4: G H I J

Step 5:

Row 5: K L M N O.

Output : A

BC

DEF

GHIJ

KLMNO

```

1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * (a + c);
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10. }
```

- a) They have same value
- b) Parentheses changes values
- c) Since both have equal values, no conclusion
- d) None of the mentioned

View Answer

Answer: b

Explanation: Solving for expression 'a' expression inside parentheses are given preference evaluating (d+e) as 17.

a = 10 * 17/6 + 12.

a = 40.

Solving for expression 'b' expression inside parentheses (d + e /f + d) are evaluated as (1

b = 10 *(12 + 5/6 + 12).

b = 240.

Output : 40

240

parentheses changes values.

```

1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
```

```
5.      b = 15;
6.      c = 2;
7.      x = a - b / (3 * c) * (a + c);
8.      Console.WriteLine(x);
9.      Console.ReadLine();
10.     }
```

10. The correct way of incrementing the operators are :

- a) ++ a ++
- b) b ++ 1
- c) c += 1
- d) d ==+ 1

View Answer

Answer: c

Explanation: This += is known as short hand operator which is same as variable = variable +1 .Similarly, a-= 1 is a = a-1, a*=1 is a = a * 1. They are used to make code short and efficient.

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C# Questions & Answers – Relational and Logical Operators

a) "Line 1 – a is greater to b"

11

b) "Line 1 – a is not greater to b"

9

c) Both are equal

d) None of the mentioned

View Answer

Answer: a

Explanation: Now, here in 'if' condition both conditions of parenthesis and hence evaluating operators based on parenthesis are tested. for expression :

```
((a * b / c) + d)
Step 1 : (a*b/c) (Evaluating as 4*5/6 = 3)
Step 2 : ( (a*b/c) + d ) (Evaluating (3 + 8 = 11))
Result : 11
for expression : (b * c + d) / a
Step 1 : (b*c + d) (Evaluating as 5*6 +8 = 38)
Step 2: (b*c + d) / a (Evaluating as 38 / 4 = 9)
Result : 9
```

The relational operator ">=" between both expressions check for largest figure and hence consecutively executes the if condition.

Output:

```
Line 1 - a is greater to b.
11
```

a) 0

C# is great!

20

b) 0

C# is not great!

25

c) 0

C# is great!

25

d) 0

C# is not great!

20

View Answer

Answer: d

Explanation: The expression $(a * (c - b) / e + (b + c))$ on evaluation parenthesis by parenthesis gives result mathematically as 25. Similarly, $(e * (c + a) / (b + c) + a)$ on evaluation parenthesis by parenthesis gives mathematically result as 20. Relational operator now checks for condition as in if condition as $(25 < 20)$ which is false. So, a false bit in form of '0' is assigned to d. Now, in if condition $(d != 1)$ as $d = 0$. So, condition after else is evaluated.

Output :

```
0.
C# is not great!.
20.
```

3. Which of the following is/are not Relational operators in C#.NET ?

a) >=

b) <>=

c) Not

d) <=

View Answer

Answer: b

Explanation: By definition.

a) 6 2

b

b) 8 1

a

c) 6 1

a

d) 8 1

b

View Answer

Answer: b

Explanation: After evaluation of the test expression $!((p*q)/n <= (q*w)+n/p)$. The use of logical operator(!) turns false(0) result to bit '1' and hence the condition evaluated by 'if' loop is after else as :

$-p = 3$

$q = 5$

$-p + q = 8$ where now value of 'q' is 4.

$-n = 2 - 1 = 1$.

So, values after evaluations are 8 1.

a.

Output :

8 1
a

a) $y = 5, m = 6 ; y = 5, m = 5$

b) $y = 6, m = 6 ; y = 7, m = 6$

c) $y = 5, m = 6 ; y = 7, m = 7$

d) $y = 5, m = 6 ; y = 7, m = 8$

View Answer

Answer: c

Explanation:

advertisement

step 1 : $m = 5, y = m++$ i.e $y = 5, m = 6$.

step 2 : $y = ++m$, Since $m = 6$. So, $m = 7$ on $++m$ and hence $y = 7$.

Output : $y = 5, m = 6 ; y = 7, m = 7$.

a) 2 ,2 ,1

b) 2 ,3 ,2

c) 2 ,2 ,2

d) 2 ,0 ,9

View Answer

Answer: c

Explanation: $z = 6$ as $++b$.

$y = 2$ as $++c$.

$6 \ \&\& \ 2 = 1$

$(++a == b)$ which is false as $4 != 6$. Now, $!(false) = true$ i.e 1.

So, $1 \ || \ 1 = 1$. So, $b = 1$.

Similarly, $c = 2$ and $a = 4$. Now, $2 \ || \ 4 = 1$.

So, a = 1.

Hence ++a = 2, ++b = 2, c = 2.

Output :

2, 2, 2

a) 12, 5, 0

b) 11, 4, False

c) 11, 5, 0

d) 12, 4, False

View Answer

Answer: b

Explanation: Step 1: Convert.ToInt32(u < b)(Evaluate result as $9 < 5$ which is false in nature. So, solution is converted from 'false' to '0').

Step 2: (a + b--) evaluated as $4 + 5 = 9 + 2 = 11$.

Step 3: u < b evaluated as 'False' without being converted to '0'.

Output: 11

4

False.

a) 0 0

b) 1 0

c) 0 1

d) 1 1

View Answer

Answer : c

Explanation: Solving the expression for b1 tests the condition for either true or false result in '0'. Similarly, for 'b2' '1' on solving gives '0'. So, condition is true for bool b2 as $0 == 0$. Hence, k = 0 and z = 1.

Output :

0 1.

a) -1, 22, 0

b) -1, 21, 1

c) 0, 22, 1

d) 0, 22, 0

View Answer

Answer : b

Explanation: Here, for first value of c, ++b = 1 and $1 * (22 \% 2) = 0$. c = 0. Now c == 0 and --a = $22 - 1 = 21$. Now, c == is the first condition executed and then decremented So, c = -1. Similarly, a++ = 21. Now, as we can see from options we are confirmed over value of c = -1, a = 21. So, we can easily know that d = 1.

Output:

-1 21 1

a) Figure is square

b) Figure is hypotenuse

c) False

d) None of the mentioned

View Answer

Answer : a

Explanation: Solving the expression for 'c' we get c == 10 in if first condition as (c == Convert.ToInt32(Math.Sqrt(a * a + b * b))). The logical condition when d == (c = 10) suits here. Similarly, going for second condition where c == 10 as '&&' operator exists between both given condition and at last both are evaluated to true as c == 10. So, only first statement is executed.

Output :

Figure is square

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C# Questions & Answers – Bitwise and Conditional Operators

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

- a) 0, 20
- b) 10, 10
- c) 0, 10
- d) 0, 0

View Answer

Answer: c

Explanation: When 'OR' operations is done on the binary values following are the results of OR.
'OR' means addition(+) operation.

0 (false)	+	0 (false)	=	0 (false)
1 (True)	+	0 (false)	=	1 (True)
0 (false)	+	1 (True)	=	1 (True)
1 (True)	+	1 (True)	=	1 (True)

When using OR operation it gives FALSE only when both the values are FALSE. In all other cases 'OR' operation gives 'true'.
Output :

```
10 AND 20 Result :0.
10 AND 10 Result :10.
```

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
```

```

6.      temp = (byte) ~b2;
7.      Console.Write( temp + " ");
8.      temp = (byte) (b1 << b2);
9.      Console.Write(temp + " ");
10.     temp = (byte) (b2 >> 2);
11.     Console.WriteLine(temp);
12.     Console.ReadLine();
13. }

```

- a) 20, 10
- b) 30, 10
- c) 10, 20
- d) 10, 10

View Answer

Answer: b

Explanation: There are two kinds of Shift operations “Right Shift” and “Left Shift”. Right Shift operation is used for shifting the bit positions towards right side. Left Shift operation is used for shifting the bit positions towards left side. When Right Shift operations are done on a binary value the bits are shifted one position towards the right.

Output :

```

10 OR 20 Result :30.
10 OR 10 Result :10.

```

3. Select the output for the following set of Code:

```

1.  static void Main(string[] args)
2.  {
3.      byte b1 = 0 * AB;
4.      byte b2 = 0 * 99;
5.      byte temp;
6.      temp = (byte) ~b2;
7.      Console.Write( temp + " ");
8.      temp = (byte) (b1 << b2);
9.      Console.Write(temp + " ");
10.     temp = (byte) (b2 >> 2);
11.     Console.WriteLine(temp);
12.     Console.ReadLine();
13. }

```

- a) 101 0 34
- b) 103 2 38
- c) 102 0 38
- d) 101 1 35

View Answer

Answer: c

Explanation: None.

Output:

102 0 38.

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

4. Which of the following options is not a Bitwise Operator in C#?

- a) &, |
- b) ^, ~
- c) <<, >>
- d) +=, -=

View Answer

Answer: d

Explanation: +=, -= are Assignment Operators in C#.

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
```

```

11. Console.WriteLine(temp);
12. Console.ReadLine();
13. }

```

- a) 0
- b) 1
- c) True
- d) False

View Answer

Answer: c

Explanation: 'bools' are single bits, and so a bit-wise OR is the same as a logical OR.

Output :

True.

3. Select the output for the following set of Code:

```

1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }

```

- a) $x \% y == 0 ? (x == y ? (x += 2)(y = x + y)); y = y * 10;$
- b) $x \% y == 0 ? y += 10; (x += 10);$
- c) $x \% y == 0 ? \text{return}(x) : \text{return}(y);$
- d) All of the mentioned.

View Answer

Answer: b

Explanation: None.

Output :

```

{
    int x = 10, y = 20;
    int res;
    x % y == 0 ? y += 10 : (x += 10);
    Console.WriteLine(res);
}

```

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

a) 5, 8

b) 10, 4

c) 8, 5

d) 11, 8

View Answer

Answer: c

Explanation: Since condition $y > 10$ is false and $!(\text{false}) = \text{true}$. So, first statement $x = y + 3$ is executed which is $x = 8$ with $y = 5$.

Output:

8, 5.

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

8. Which among the following is a conditional operator ?

- a) ':'
- b) ?;
- c) ?:
- d) ??

View Answer

Answer: c

Explanation: By definition.

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

- a) True
False
- b) False
True
- c) True
True
- d) False
False

View Answer

Answer: c

Explanation: $a \% c == 0$ condition is true as $(4 \% 2 == 0)$. So, b is evaluated as true. Now $(a/c == 2)$ which means if condition is also true hence it is evaluated as true.

Output:

```
True
True
```

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
```

```
4.      byte b2 = 0 * 99;
5.      byte temp;
6.      temp = (byte) ~b2;
7.      Console.Write( temp + " ");
8.      temp = (byte) (b1 << b2);
9.      Console.Write(temp + " ");
10.     temp = (byte) (b2 >> 2);
11.     Console.WriteLine(temp);
12.     Console.ReadLine();
13. }
```

- a) ?:< &&< !=< &< ++
- b) ?:< &&< !=< ++< &
- c) ?:< &&< &< !=< ++
- d) ?:< &&< !=< &< ++

View Answer

Answer: c

Explanation: By definition.

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C# Questions & Answers – IF Statements

```
1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.IsUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.    Console.ReadLine();
12. }
```

13. 1. Enter a letter :

14. a

15. An uppercase letter

16. 2. Enter a letter :

17. A

18. An uppercase letter

19. 3. Enter a letter :

20. 2

21. A number

22. 4. Enter a letter :

23. 2

24. A lowercase letter.

a) In if

b) In else

c) In if

In main

d) In else

In main

View Answer

Answer: d

Explanation: Usage of '=' operator instead of '==' operator .hence,the condition is not true.

Output:

```
In else
In main
```



```

1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.IsUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.    Console.ReadLine();
12. }

```

13. 1. Enter a letter :

14. a

15. An uppercase letter

16. 2. Enter a letter :

17. A

18. An uppercase letter

19. 3. Enter a letter :

20. 2

21. A number

22. 4. Enter a letter :

23. 2

24. A lowercase letter.

a) 1 2 3 4 5 6 7 8 9

b) 0 1 2 3 4 5 6 7 8

c) 0 1 2 3

d) 0 1 2 3 4

View Answer

Answer: c

Explanation: The if condition will never be fulfilled as $((a / b) * 2 == 2)$ is never true. Hence, only else part of condition will be executed until $i! = 4$ i.e $i = 0, 1, 2, 3$.

Output:

0 1 2 3

```

1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");

```

```
4.      char c = (char)Console.Read();
5.      if (Char.IsDigit(c) == true)
6.          Console.WriteLine("A number");
7.      else if (char.IsLower(c) == true)
8.          Console.WriteLine("A lowercase letter");
9.      else if (char.IsUpper(c) == true)
10.         Console.WriteLine("An uppercase letter");
11.      Console.ReadLine();
12.  }
13.  1. Enter a letter :
14.      a
15.      An uppercase letter
16.  2. Enter a letter :
17.      A
18.      An uppercase letter
19.  3. Enter a letter :
20.      2
21.      A number
22.  4. Enter a letter :
23.      2
24.      A lowercase letter.
```

Which of the following conditions are true ?

- a) a ,b ,c
- b) b ,c ,d
- c) a ,d ,b
- d) b ,c

View Answer

Answer: d

Output:

```
Enter a letter :
A
An uppercase letter
Enter a letter :
2
A number
```

```
1.  static void Main(string[] args)
2.  {
3.      Console.WriteLine("Enter a letter:");
4.      char c = (char)Console.Read();
```

```

5.      if (Char.IsDigit(c) == true)
6.          Console.WriteLine("A number");
7.      else if (char.IsLower(c) == true)
8.          Console.WriteLine("A lowercase letter");
9.      else if (char.IsUpper(c) == true)
10.         Console.WriteLine("An uppercase letter");
11.         Console.ReadLine();
12.     }

```

13. 1. Enter a letter :

14. a

15. An uppercase letter

16. 2. Enter a letter :

17. A

18. An uppercase letter

19. 3. Enter a letter :

20. 2

21. A number

22. 4. Enter a letter :

23. 2

24. A lowercase letter.

a) 1 0 0

0 1 0

0 0 1

b) 0 1 0

1 0 0

0 0 1

c) 0 0 1

0 1 0

1 0 0

d) 1 0 0

0 0 1

0 1 0

View Answer

Answer: c

Explanation: In first row for $i = 2 : j = 0 \implies 0$ as if condition fails for ($i == j$)

$i = 2 : j = 1 \implies 0$ as again if condition fails for ($i == j$)

$i = 2 : j = 2 \implies 1$ as ($i == j$).

In Second row for $i = 1 : j = 0 \implies 0$ as if condition fails for ($i == j$)

$i = 1 : j = 1 \implies 1$ (as $i == j$)

$i = 1 : j = 2 \implies 0$ as ($i == j$) not true

In Third row for $i = 0 : j = 0 \implies 1$ as ($i == j$) true

$i = 0 : j = 1 \implies 0$ as ($i == j$) not true.

$i = 0 : j = 2 \implies 0$.

So, 0 0 1

0 1 0

1 0 0

Output: 0 0 1

0 1 0

1 0 0

```
1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.IsUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.    Console.ReadLine();
12. }
13. 1. Enter a letter :
14.    a
15.    An uppercase letter
16. 2. Enter a letter :
17.    A
18.    An uppercase letter
19. 3. Enter a letter :
20.    2
21.    A number
22. 4. Enter a letter :
23.    2
24.    A lowercase letter.
```

View Answer

Answer: c

Explanation:

```
int []num = {50, 65, 56, 88, 43, 52};
int even = 0, odd = 0;
for (int i = 0 ; i < num.Length ; i++)
{
    if (num[i] % 2 == 0)
    {
```

```
        even += 1;
    }
    else
    {
        odd += 1;
    }
}
Console.WriteLine("Even Numbers: " +even);
Console.WriteLine("Odd Numbers: " +odd);
Console.ReadLine();
```

```
1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.IsUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.    Console.ReadLine();
12. }
13. 1. Enter a letter :
14.    a
15.    An uppercase letter
16. 2. Enter a letter :
17.    A
18.    An uppercase letter
19. 3. Enter a letter :
20.    2
21.    A number
22. 4. Enter a letter :
23.    2
24.    A lowercase letter.
```

- a) cquestionbank
- b) It will print nothing
- c) Compile time error
- d) Run time error

View Answer

Answer: c

Explanation: Keyword "break" is not part of if-else statement. This keyword is used in case of loop or switch case statement.

```
1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.IsUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.    Console.ReadLine();
12. }
13. 1. Enter a letter :
14.    a
15.    An uppercase letter
16. 2. Enter a letter :
17.    A
18.    An uppercase letter
19. 3. Enter a letter :
20.    2
21.    A number
22. 4. Enter a letter :
23.    2
24.    A lowercase letter.
```

- a) Rahul Dravid
 - b) Sachin Tendulkar
 - c) Ms Dhoni
 - d) Warning : Unreachable Code
- View Answer

Answer: b

Explanation: $(0.002 - 0.1f)$ not equivalent to zero hence it is true. So, only first if clause will execute and print: Sachin Tendulkar on console. As, first condition is always true so no else if statement will be executed.

Output:

Sachin Tendulkar

```
1. static void Main(string[] args)
2. {
```

```

3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.IsUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.    Console.ReadLine();
12. }

```

```

13. 1. Enter a letter :
14.    a
15.    An uppercase letter
16. 2. Enter a letter :
17.    A
18.    An uppercase letter
19. 3. Enter a letter :
20.    2
21.    A number
22. 4. Enter a letter :
23.    2
24.    A lowercase letter.

```

- a) a
 - b) b
 - c) Compile time error
 - d) Code execute successfully with no output
- View Answer

Answer: c

Explanation: Both a and b are constants. Illegal to assign a value to constant on left hand of '=' operator. Hence, it must be some variable.

```

1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)

```

```

8.         Console.WriteLine("A lowercase letter");
9.         else if (char.IsUpper(c) == true)
10.            Console.WriteLine("An uppercase letter");
11.        Console.ReadLine();
12.    }
13. 1. Enter a letter :
14.    a
15.    An uppercase letter
16. 2. Enter a letter :
17.    A
18.    An uppercase letter
19. 3. Enter a letter :
20.    2
21.    A number
22. 4. Enter a letter :
23.    2
24.    A lowercase letter.

```

- a) Compile time error: Misplaced else
- b) Compile time error: Undefined symbol
- c) java
- d) Warning: Condition is always true

View Answer

Answer: c

Explanation:

```

0xB: hexadecimal integer constant.
022: It octal integer constant.
'\xeb': It is hexadecimal character constant.

```

As, zero is false and any non-zero number is true. All constants return a non-zero value. So, all if conditions in the above program are true.

Output:

```
java.
```

```

1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)

```



```

8.         Console.WriteLine("A lowercase letter");
9.     else if (char.IsUpper(c) == true)
10.         Console.WriteLine("An uppercase letter");
11.     Console.ReadLine();
12. }

```

13. 1. Enter a letter :

14. a

15. An uppercase letter

16. 2. Enter a letter :

17. A

18. An uppercase letter

19. 3. Enter a letter :

20. 2

21. A number

22. 4. Enter a letter :

23. 2

24. A lowercase letter.

a) 6 11

b) 6 16

c) 6 12

d) 6 10

View Answer

Answer: d

Explanation: Consider the following expression(++a || ++b). In this expression || is 'Logical OR operator'. Two important properties of this operator are:

Property 1:

(Expression1) || (Expression2)

|| operator returns 0 if and only if both expressions return a zero otherwise || operator returns 1.

initial value of a is 5. So ++a will be 6. Since ++a is returning a non-zero so ++b will not execute.

Output :

6 10.

C# Questions & Answers – Switch Statements

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
8.             ++k;
9.             break;
10.        case 2:
11.            --i;
12.            ++k;
13.            break;
14.        default:
15.            i += 3;
16.            k += i;
17.            break;
18.    }
19.    Console.WriteLine(i + "\n" + k);
20.    Console.ReadLine();
21. }
```

- a) 3 Idiots
 - b) Ghazini
 - c) Race
 - d) Krishh
- View Answer

Answer: c

Explanation: We can put 'default' case in any order and hence write cases in any order.

Output:

Race.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
```

```
3.      int i = 2, k = 3;
4.      switch (i - k)
5.      {
6.      case -1:
7.          ++i;
8.          ++k;
9.          break;
10.     case 2:
11.         --i;
12.         ++k;
13.         break;
14.     default:
15.         i += 3;
16.         k += i;
17.         break;
18.     }
19.     Console.WriteLine(i + "\n" + k);
20.     Console.ReadLine();
21. }
```

- a) 3 to 10 will be printed
- b) 1 and 2 will be printed
- c) The code reports an error as missing ; before :
- d) The code gives output as 3 to 10

View Answer

Answer: c

Explanation: Syntax error- switch case does not work with syntax as 3 to 10:

Output :

Here $i = 2, j = 4$. So, $(i + j * 2)$ gives output as 10 and case 10 is missing. So, prints nothing for given code.

3. Select the output for the following set of code :

```
1.  static void Main(string[] args)
2.  {
3.      int i = 2, k = 3;
4.      switch (i - k)
5.      {
6.      case -1:
7.          ++i;
8.          ++k;
```

```

9.         break;
10.        case 2:
11.            --i;
12.            ++k;
13.            break;
14.        default:
15.            i += 3;
16.            k += i;
17.            break;
18.    }
19.    Console.WriteLine(i + "\n" + k);
20.    Console.ReadLine();
21. }

```

- a) 2 3 3
- b) 3 2 3
- c) 3 4 4
- d) 5 10 10

View Answer

Answer: c

Output:

```

3
4
4

```

Explanation: $i - k = -1$. So, case -1 will be executed only.

3. Select the output for the following set of code :

```

1.  static void Main(string[] args)
2.  {
3.      int i = 2, k = 3;
4.      switch (i - k)
5.      {
6.          case -1:
7.              ++i;
8.              ++k;
9.              break;
10.         case 2:
11.             --i;
12.             ++k;

```

```
13.         break;
14.     default:
15.         i += 3;
16.         k += i;
17.         break;
18.     }
19.     Console.WriteLine(i + "\n" + k);
20.     Console.ReadLine();
21. }
```

- a) A
 - b) B
 - c) C
 - d) Compile time error
- View Answer

Answer: d

Explanation: In case expression we don't have constant variable.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.     case -1:
7.         ++i;
8.         ++k;
9.         break;
10.    case 2:
11.        --i;
12.        ++k;
13.        break;
14.    default:
15.        i += 3;
16.        k += i;
17.        break;
18.    }
19.    Console.WriteLine(i + "\n" + k);
```

20. `Console.ReadLine();`

21. `}`

- a) 1 3 1
 - b) 2 3 4
 - c) 5 3 4
 - d) Compile time error.
- View Answer

Answer: a

Explanation: Solving expression $(i + j - k)$ gives 1 and hence, solving for case 1:case 3:case 5:.

Output :

advertisement

```
1
3
1
```

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
8.             ++k;
9.             break;
10.        case 2:
11.            --i;
12.            ++k;
13.            break;
14.        default:
15.            i += 3;
16.            k += i;
17.            break;
18.    }
19.    Console.WriteLine(i + "\n" + k);
20.    Console.ReadLine();
21. }
```

- a) 5 7

- b) 9 13
- c) Compile time error
- d) 9 7

View Answer

Answer: c

Explanation: Invalid expression '7:' in case 9:7:.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
8.             ++k;
9.             break;
10.        case 2:
11.            --i;
12.            ++k;
13.            break;
14.        default:
15.            i += 3;
16.            k += i;
17.            break;
18.    }
19.    Console.WriteLine(i + "\n" + k);
20.    Console.ReadLine();
21. }
```

- a) amish
- b) ANKIT
- c) harsh
- d) Compile time error

View Answer

Answer: d

Explanation: Only integral values are allowed for case expression.

5.0f=(int)5.0f.

5.0L=(int)5.0L.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
8.             ++k;
9.             break;
10.        case 2:
11.            --i;
12.            ++k;
13.            break;
14.        default:
15.            i += 3;
16.            k += i;
17.            break;
18.    }
19.    Console.WriteLine(i + "\n" + k);
20.    Console.ReadLine();
21. }
```

- a) 23
- b) 15
- c) Compile time error
- d) 12

View Answer

Answer: c

Explanation: Continue cannot be used as a part of switch statement.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
```



```

8.      ++k;
9.      break;
10.     case 2:
11.         --i;
12.         ++k;
13.         break;
14.     default:
15.         i += 3;
16.         k += i;
17.         break;
18.     }
19.     Console.WriteLine(i + "\n" + k);
20.     Console.ReadLine();
21. }

```

a) Compile time error

b) case A|case a

c) case B|case b

d) case D|case d

View Answer

Answer: d

Explanation: Case statement declared last will only be executed as no particular case number is declared is to be called.

Output:

```
case D|case d
```

3. Select the output for the following set of code :

```

1.  static void Main(string[] args)
2.  {
3.      int i = 2, k = 3;
4.      switch (i - k)
5.      {
6.          case -1:
7.              ++i;
8.              ++k;
9.              break;
10.         case 2:
11.             --i;
12.             ++k;

```

```
13.         break;
14.     default:
15.         i += 3;
16.         k += i;
17.         break;
18.     }
19.     Console.WriteLine(i + "\n" + k);
20.     Console.ReadLine();
21. }
```

- a) coco main
 - b) coco 112
 - c) coco 112 main
 - d) compile time error
- View Answer

Answer: c

Explanation: ASCII value of 'p' is 112. Hence, coco 112 main.

Output:

coco 112 main.

ayzom.com

C# Questions & Answers – For Loop Statements

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) No output
- b) hello
- c) hello printed infinite times
- d) Code will give error as expression syntax

View Answer

Answer: c

Explanation: Testing condition for the loop is absent. So, loop will continue executing.

Output :

```
hello
hello
hello
.
.
.
```

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) 1.1
- b) 0.1
- c) 0.1 0.2 0.3 0.4 0.5
- d) None of the mentioned

View Answer

Answer: a

Explanation: $f=0.1$ and $++f=0.1+1=1.1$. So, $1.1 > 0.5$, Condition fails and hence loop terminates.

Output :

1.1

```

1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) Output of code is 5 10
b) Output is 5 5 5 5
c) Print 5 infinite times
d) None of the mentioned

View Answer

Answer: c

Explanation: Testing condition is always incremented i.e. it never ' $>$ ' $(9\%2+I)$. So, loop will never terminate.

Output :

5 5 5.....

```

1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) 1 2 3 4 5 6 7 8 9
b) 25
c) 1
d) Run time error

View Answer

Answer: d

Explanation: Due to presence of ';' after for() loop condition do not work as according to the statement. Remove the ';'.

Output :

25.

```

1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) 4 3 2 1
- b) 3 2 1
- c) 5 4 3 2 1
- d) 2 1

View Answer

Answer: c

Explanation: Since, i = 5 and test condition is executed until i != 0. So, i- decrements value of i till condition is satisfied.

Output:

5 4 3 2 1

```

1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) Code report error
- b) Code runs in infinite loop condition
- c) Code gives output as 0 1 3 6 10 15 21 28 36 45
- d) Code give output as 55

View Answer

Answer: d

Explanation: Since occurrence of termination symbol(;) at end of for loop.

Output:

55.

```

1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

7. Which statement is correct among the mentioned statements?

1. The for loop works faster than a while loop

2. for(;;) implements an infinite loop

a) Only 1 is correct

b) Only 2 is correct

c) Both 1 and 2 are correct

d) Both 1 and 2 are incorrect

View Answer

Answer: b

Explanation: By definition.

```

1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

a) Prints 'Hi' for one time

b) Prints 'Hi' for infinite times

c) Stack overflow exception Condition generated

d) None of above mentioned

View Answer

Answer: c

Explanation: Occurrence of 'main()' condition after for loop.

Output:

```
Hi
Hi
.
.
stack overflow exception.
```

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

View Answer

Answer: c

Explanation: Input in Console and run the code.

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) B B zero A A A
- b) B zero A A A
- c) B B B zero A A A
- d) A A A zero B B B

View Answer

Answer: c

Explanation: for i=-3,-2,-1 statement executed as B, for i=0, it is zero and for i=1,2,3 again statement printed as A separately for each value of

i.

Output:

B B B zero A A A.

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

11. Which of the following is not infinite loop?

- a) for(;'0';)
- b) for(;'0';)
- c) for(;'1';)
- d) for(;'1';)

View Answer

Answer: b

Explanation: None.

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) i = 0, j = 1;
- b) i = 1, j = 0;
- c) j = 0;
- d) None of the mentioned

View Answer

Answer: c

Explanation: Since for i = 1, j = 1 and 1 <= 3 also 1 >= 0 we had i == j. But after i++ and j--. The initial value of 'j' which is '0' as j-- preferred other than value of 'j' in i = j.

Output:

j = 0.

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) -9 -8 -7 -6 -5 -4 -3 -2 -1
- b) -10 -9 -8 -7 -6 -5 -4 -3 -2
- c) -10 -9 -8 -7 -6 -5 -4 -3 -2 -1
- d) -8 -7 -6 -5 -4 -3 -2 -1

View Answer

Answer: c

Explanation: For first value of i = -10. Condition is executed until i != 0.

Output:

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1.

C# Questions & Answers – While Loop Statements

```
1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while ( ++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }
```

- a) 11 21 31
- b) 1 12 13 1
- c) 11 21 31
- d) 1 1 2 1 3 1

View Answer

Answer: c

Explanation: Since, condition never satisfied for any value of i and j for which $(i \% j == 2)$. Hence, j is always constant '1' and 'i' increments for i = 1, 2, 3.

Output:

```
11 21 31.
```

```
1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
```

```
10.     i = 0;
11.     while ( ++i < 5)
12.     {
13.         Console.WriteLine(i);
14.     }
15.     Console.ReadLine();
16. }
```

- a) 0.1
- b) 1.1
- c) 0.1 0.2 0.3 0.4 0.5
- d) No output

View Answer

Answer: b

Explanation: For the first while condition check when s = 0. If it is true as control goes inside loop ++s increments value of s by 1 as 1+0.1 = 1.1. So, for next condition while loop fails and hence, prints final value of s as 1.1.

Output:

1.1

```
1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while ( ++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }
```

- a) 1 2 3 4
- 1 2 3 4 5
- b) 1 2 3
- 1 2 3 4
- c) 1 2 3 4 5
- 1 2 3 4

d) 1 2 3 4 5

1 2 3 4 5

View Answer

Answer: c

Explanation: For while($i++ < 5$) current value of 'i' is checked first and hence prints incremented value afterwards. So, $i=1, 2, 3, 4, 5$. But, for while($++i < 5$) current value is incremented first and then checks that value with given condition and hence then prints that value. So, $i=1, 2, 3, 4$.

Output:

```
1 2 3 4 5
1 2 3 4
```

```
1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while ( ++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }
```

a) 1 2 3 4 5 6 7 8 9 10

11 12 13 14 15 16 17 18 19 20

b) 0 2 4 6 8 10 12 14 16 18 20

c) 0 2 4 6 8

d) 0 2 4 6 8 10

View Answer

Answer: c

Explanation: Inner while loop condition checks for even number between 0 and 10 and hence prints number between the given range.

Output:

```
0 2 4 6 8.
```

```
1. static void Main(string[] args)
2. {
3.     int i;
```

```

4.      i = 0;
5.      while (i++ < 5)
6.      {
7.          Console.WriteLine(i);
8.      }
9.      Console.WriteLine("\n");
10.     i = 0;
11.     while ( ++i < 5)
12.     {
13.         Console.WriteLine(i);
14.     }
15.     Console.ReadLine();
16. }

```

a) Execute while 1 time

Execute while 3 time

Execute while 5 time

Execute while 7 time

b) Execute while 2 time

Execute while 4 time

Execute while 6 time

Execute while 8 time

c) Execute while 1 time

Execute while 2 time

Execute while 3 time

Execute while 4 time

Execute while 5 time

Execute while 6 time

Execute while 7 time

d) Execute while 2 time

Execute while 3 time

Execute while 4 time

Execute while 5 time

View Answer

Answer: b

Explanation: Checks condition if number is divisible by 2 then it will print it even number times as given for x = 8 so, prints between 2 to 8 times Similarly, for x = 5, Execute 2 and 4 time.

OUTPUT:

```

Execute while 2 time.
Execute while 4 time.
Execute while 6 time.
Execute while 8 time.

```

```

1. static void Main(string[] args)
2. {
3.     int i;

```

```
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while ( ++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }
```

- a) 3245
- b) 2354
- c) 2345
- d) 5423

View Answer

Answer: c

Explanation: Reverse of number using while loop.

Output:

2345.

```
1.  static void Main(string[] args)
2.  {
3.      int i;
4.      i = 0;
5.      while (i++ < 5)
6.      {
7.          Console.WriteLine(i);
8.      }
9.      Console.WriteLine("\n");
10.     i = 0;
11.     while ( ++i < 5)
12.     {
13.         Console.WriteLine(i);
14.     }
```

```
15. Console.ReadLine();
```

```
16. }
```

View Answer

Answer:c

Explanation: By definition.

```
1. static void Main(string[] args)
```

```
2. {
```

```
3.     int i;
```

```
4.     i = 0;
```

```
5.     while (i++ < 5)
```

```
6.     {
```

```
7.         Console.WriteLine(i);
```

```
8.     }
```

```
9.     Console.WriteLine("\n");
```

```
10.    i = 0;
```

```
11.    while ( ++i < 5)
```

```
12.    {
```

```
13.        Console.WriteLine(i);
```

```
14.    }
```

```
15.    Console.ReadLine();
```

```
16. }
```

a) 0.05f

b) 1.50f

c) -0.04999995f

d) 1.50f

View Answer

Answer: c

Explanation: for while(i = 1.0f and j = 0.05f). We, had '&&' condition which gives '1'. So, control enters while loop. Since, i = 1 and i++ = first execute then increment. So, first with 'i' value as 1.0f and ++j = first increment and then executes we had j = 1.05f and Since operation (i++ - ++j) gives us a negative sign number. So, we can stick our choice to option 'c' clearly. Now, as i = 2.0f so loop breaks.

Output:

```
-0.04999995f.
```

```
1. static void Main(string[] args)
```

```
2. {
```

```
3.     int i;
```

```
4.     i = 0;
```

```
5.     while (i++ < 5)
```

```
6.     {
```

```

7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while ( ++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }

```

- a) code prints output as 0 0 0 0 0
- b) code prints output as 10 20 30 40 50
- c) infinite loop but doesn't print anything
- d) Code generate error

View Answer

Answer: c

Explanation: None.

```

1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while ( ++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }

```

- a) 12 11
- b) 10 11
- c) 11 10
- d) 11 12

View Answer

Answer: c

Explanation: As ++i, first increments then execute so, for ++i i is 11 and j++ is first execute then increments. So, j = 10.

Output:

11 10.

```
1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while ( ++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }
```

- a) Hi...
- b) Hello....
- c) Hi...infinite times
- d) Hello infinite times

View Answer

Answer: b

Explanation: Ascii value of 'A' is 65 and 'a' is 97. So, clearly 'A' < 'a'.

Output:

Hello.

```
1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
```

```
8.      }
9.      Console.WriteLine("\n");
10.     i = 0;
11.     while ( ++i < 5)
12.     {
13.         Console.WriteLine(i);
14.     }
15.     Console.ReadLine();
16. }
```

- a) -127 to +127
 - b) 0 to 127
 - c) 1
 - d) Infinite loop condition
- View Answer

Answer: c

Explanation: `i++` = first executes then increments as `i = 0`. So, `i++ != 0`, which is false clearly as `i = 0`. Now, control goes inside loop with `i = 1`. So, statement prints `i = 1`.

Output:

1.

C# Questions & Answers – Do While Loop Statements

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) 0 0 0
- b) True True True
- c) 1 1 1
- d) False False False

View Answer

Answer: b

Explanation: 1 AND 1 = True. Similarly , non zero number || non zero number = True.

Output:

True True True.

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) 0.05
- b) -0.05
- c) 0.95
- d) -0.04999995

View Answer

Answer: d

Explanation: None.

Output :

-0.04999995

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) 5 10 15 20 25 30 35 40 45 50
- b) 5 25
- c) 5 11 16 21 26 31 36 41 46 51
- d) 5 30

View Answer

Answer: b

Explanation: For first step of loop $i = 1$. So, $i++ * j = 1 * 5 = 5$. For second step of loop $i = 5$, $j = 5$. So, $i++ * j = 25$. As, $i = 25$ hence, $25 \geq 10$ loop condition breaks.

Output:

5 25.

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

View Answer

Answer: a

Output :

```
static void Main(string[] args)
{
    int i = 1234, j = 0;
```

```
do
{
    j = j + ( i % 10);

}while ((i = i / 10) != 0);
Console.WriteLine(j);
}
```

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) number of digits present in x
- b) prints '1'
- c) prints reverse of x
- d) prints sum of digits of 'x'

View Answer

Answer: c

Explanation: Reverse of digits using while loop statements.

Output:

4321.

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) It finds binary equivalent of i
- b) It finds octal equivalent of i
- c) It finds sum of digits of i

d) It finds reverse of i

View Answer

Answer: b

Explanation: None.

Output :

```
i = 342.  
s = 526.
```

3. Select the output for the following code :

```
1. static void Main(string[] args)  
2. {  
3.     int i = 1, j = 5;  
4.     do  
5.     {  
6.         Console.WriteLine(i = i++ * j);  
7.     }while (i <= 10);  
8.     Console.ReadLine();  
9. }
```

View Answer

Answer: d

Explanation: By definition

Output:

```
do  
{  
    statement;  
}while (condition);
```

3. Select the output for the following code :

```
1. static void Main(string[] args)  
2. {  
3.     int i = 1, j = 5;  
4.     do  
5.     {  
6.         Console.WriteLine(i = i++ * j);  
7.     }while (i <= 10);  
8.     Console.ReadLine();  
9. }
```

a) 13

b) 15

c) 11

d) 10

View Answer

Answer: d

Explanation: Here in do while condition '&&' i.e 'AND' operator return '0' i.e false. So, as condition is false so program comes out of the loop.

Output :

10.

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) 0 0 0....infinite times
- b) 1 1 1....infinite times
- c) 1 1 1 1 1 1
- d) System outoflow exception error

View Answer

Answer: c

Explanation: The execution of for loop is done for six consecutive times.

Output :

1 1 1 1 1 1

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) 1 2 3 4 5
- b) 10
- c) 5 6 7 8 9 10
- d) 1 2 3 4 5 6 7 8 9 10

View Answer

Answer: d

Explanation: The condition will print the numbers from 1 to 10 when $x == 5$ and when x does not satisfy if condition until $x < 10$.

Output:

1 2 3 4 5 6 7 8 9 10 .

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) 1 12 1 3 1
- b) 1 12 13 1
- c) 12 22 32
- d) 11 21 31

View Answer

Answer: c

Explanation: None.

Output :

12 22 32.

C# Questions & Answers – Continue, Goto Statements

3. Select the output for the following set of code :

```
1.  static void Main(string[] args)
2.  {
3.      int i = 1, j;
4.      do
5.      {
6.          for (j = 1; ; j++)
7.          {
8.              if (j > 2)
9.                  break;
10.             if (i == j)
11.                 continue;
12.             Console.WriteLine(i + " " + j);
13.         }
14.         i++;
15.     } while (i < 3);
16.     Console.ReadLine();
17. }
```

- a) 12
- b) 11
- c) Compile time error
- d) 13

View Answer

Answer: c

Explanation: 'Continue' loop cannot be used within 'if' loop .replace while with if(i<7).

Output: Compile time error.

3. Select the output for the following set of code :

```
1.  static void Main(string[] args)
2.  {
3.      int i = 1, j;
4.      do
5.      {
6.          for (j = 1; ; j++)
7.          {
```

```
8.          if (j > 2)
9.              break;
10.         if (i == j)
11.             continue;
12.         Console.WriteLine(i + " " + j);
13.     }
14.     i++;
15. } while (i < 3);
16. Console.ReadLine();
17. }
```

- a) number is odd
- b) number is even
- c) Compile time error
- d) none of the mentioned

View Answer

Answer: c

Explanation: "Undefined label 'even' in main().The syntax 'goto even;' is incorrect instead use 'goto even;'".

3. Select the output for the following set of code :

```
1.  static void Main(string[] args)
2.  {
3.      int i = 1, j;
4.      do
5.      {
6.          for (j = 1; ; j++)
7.          {
8.              if (j > 2)
9.                  break;
10.             if (i == j)
11.                 continue;
12.             Console.WriteLine(i + " " + j);
13.         }
14.         i++;
15.     } while (i < 3);
16. Console.ReadLine();
17. }
```

- a) 1 2

2 1

b) 2 1

1 2

c) 1 3

2 1

d) 1 1

2 1

[View Answer](#)

Answer: a

Explanation: for i = 1. When control enters in loop first if condition is checked for where j = 1 and as (j > 2) which is false. Control is now passed to console statement with i = 1 and j = 2. Now, in while condition value of 'i' reflected is 2 i.e. i = 2 as i++. Since, (i < 3) control again enters in for loop with i = 2 but j = 1 not j = 2 for j++ and hence, again same condition executes for console statement.

Output : 1 2

2 1

3. Select the output for the following set of code :

```

1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
7.         {
8.             if (j > 2)
9.                 break;
10.            if (i == j)
11.                continue;
12.            Console.WriteLine(i + " " + j);
13.        }
14.        i++;
15.    } while (i < 3);
16.    Console.ReadLine();
17. }
```

a) 1 2 3 4 5 6 7 8 9 10

b) 10 9 8 7 6 5 4 3 2 1 0

c) 9 8 7 6 5 4 3 2 1

d) 10 9 8 7 6 5 4 3 2 1

[View Answer](#)

Answer: c

Explanation: for i = 10, loop executes for first time in 'if' loop as (i > 0) i.e. (9 > 0) and hence printing '9'. Similarly, label condition executes again go for (i--) i.e. (9-1=8) and hence again prints i = 8. In this way looping condition executes as 9, 8 to 3, 2, 1.

OUTPUT :

9 8 7 6 5 4 3 2 1.

3. Select the output for the following set of code :

```
1.  static void Main(string[] args)
2.  {
3.      int i = 1, j;
4.      do
5.      {
6.          for (j = 1; ; j++)
7.          {
8.              if (j > 2)
9.                  break;
10.             if (i == j)
11.                 continue;
12.             Console.WriteLine(i + " " + j);
13.         }
14.         i++;
15.     } while (i < 3);
16.     Console.ReadLine();
17. }
```

- a) hi hi hi
- b) hi hi
- c) hi
- d) hi hi hi.....infinite times

View Answer

Answer: d

Explanation: Since, i- so, test condition for 'i' never satisfies it fails and hence infinite loop in occurs.

output:

hi hi hi.....

3. Select the output for the following set of code :

```
1.  static void Main(string[] args)
2.  {
3.      int i = 1, j;
4.      do
5.      {
6.          for (j = 1; ; j++)
7.          {
```

```
8.         if (j > 2)
9.             break;
10.        if (i == j)
11.            continue;
12.        Console.WriteLine(i + " " + j);
13.    }
14.    i++;
15.    } while (i < 3);
16.    Console.ReadLine();
17. }
```

- a) Hi...infinite times
- b) Code runs prints nothing
- c) Hi Hi
- d) Hi...

View Answer

Answer: d

Explanation: for i = 0 ,if condition is satisfied as (i == 0).So,label statement is printed.

Output :

Hi

3. Select the output for the following set of code :

```
1.  static void Main(string[] args)
2.  {
3.      int i = 1, j;
4.      do
5.      {
6.          for (j = 1; ; j++)
7.          {
8.              if (j > 2)
9.                  break;
10.             if (i == j)
11.                 continue;
12.             Console.WriteLine(i + " " + j);
13.         }
14.         i++;
15.     } while (i < 3);
16.     Console.ReadLine();
```

17. }

- a) loop is printed infinite times
- b) loop
- c) loop loop
- d) Compile time error

View Answer

Answer: c

Explanation: Since outer while loop i.e while(i<2) executes only for two times. Hence, loop while executing third time for (j<3) could not be able to satisfy condition i<2 as i = 2. hence, loop breaks and control goes out of loop.

Output :

loop loop.

3. Select the output for the following set of code :

```

1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
7.         {
8.             if (j > 2)
9.                 break;
10.            if (i == j)
11.                continue;
12.            Console.WriteLine(i + " " + j);
13.        }
14.        i++;
15.    } while (i < 3);
16.    Console.ReadLine();
17. }
```

- a) 0 0 0 0
- b) 0 0 0
- c) 0 infinite times
- d) 0

View Answer

Answer: c

Explanation: Since, if condition is always true. Loop will continue executing always without any end condition.

Output:

0 0 0....

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
7.         {
8.             if (j > 2)
9.                 break;
10.            if (i == j)
11.                continue;
12.            Console.WriteLine(i + " " + j);
13.        }
14.        i++;
15.    } while (i < 3);
16.    Console.ReadLine();
17. }
```

- a) Prints hi 4 times
- b) Prints hi 3 times
- c) Prints hi 6 times
- d) Prints hi infinite times

View Answer

Answer: c

Explanation: None.

Output :

```
hi
hi
hi
hi
hi
hi.

```

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
```

```

7.      {
8.          if (j > 2)
9.              break;
10.         if (i == j)
11.             continue;
12.         Console.WriteLine(i + " " + j);
13.     }
14.     i++;
15. } while (i < 3);
16. Console.ReadLine();
17. }
```

- a) print hello 4 times
- b) print hello 3 times
- c) print hello 5 times
- d) print hello infinite times

View Answer

Answer: c

Explanation: Condition executes until and unless $i < 5$. So, it prints "hello" until 'i' condition is satisfied.

Output :

```

Hello
Hello
Hello
Hello
Hello
```

3. Select the output for the following set of code :

```

1.  static void Main(string[] args)
2.  {
3.      int i = 1, j;
4.      do
5.      {
6.          for (j = 1; ; j++)
7.          {
8.              if (j > 2)
9.                  break;
10.             if (i == j)
11.                 continue;
12.             Console.WriteLine(i + " " + j);
13.         }
```



```
14.         i++;  
15.     } while (i < 3);  
16.     Console.ReadLine();  
17. }
```

- a) Hi Hello
- b) Hi
- c) Hello
- d) Compile time error

View Answer

Answer: d

Explanation: Absence of any loop condition in order to make decision of break or continue.

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C# Questions & Answers – Fundamentals of Class

- a) sample.fun(1, 5) will not work correctly
- b) s.i= 10 cannot work as i is 'public'
- c) sample.fun(1, 5) will set value as 5 in arr[1].
- d) s.fun(1, 5) will work correctly

View Answer

Answer: a

Explanation: An Object reference is required for non static field,method or property. i.e

```
sample s = new sample();
s.i = 10;
sample.fun(1, 5);
sample.fun(1, 5);
Console.ReadLine();
```

2. Which of the following is used to define the member of a class externally?

- a) :
- b) ::
- c) #
- d) none of the mentioned

View Answer

Answer: b

Explanation: By definition.

3. The operator used to access member function of a class?

- a) :
- b) ::
- c) .
- d) #

View Answer

Answer: c

Explanation: objectname.function name(actual arguments);

4. What is the most specified using class declaration ?

- a) type
- b) scope
- c) type & scope
- d) None of mentioned

View Answer

Answer: c

Explanation: General form of class declaration in C# is :

```
class class_name
{
    member variables
    variable1;
    variable2;
    variableN;
    method1(parameter_list)
    {
        method body
    }
}
```

```
method2(parameter_list)
{
method body
}
methodN(parameter_list)
{
method body
}
}
```

- a) Error while calling s.fun() due to inaccessible level
 - b) Error as 'this' reference would not be able to call 'i' and 'j'
 - c) 1 2
 - d) Runs successfully but prints nothing
- [View Answer](#)

Answer: c

Explanation: Variable 'i' and 'j' declared with scope public in sample class are accessed using object of class 'sample' which is 's'.

Output:

1 2.

6. Which of following statements about objects in "C#" is correct?
- a) Everything you use in C# is an object, including Windows Forms and controls
 - b) Objects have methods and events that allow them to perform actions
 - c) All objects created from a class will occupy equal number of bytes in memory
 - d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: By definition.

7. "A mechanism that binds together code and data in manipulates, and keeps both safe from outside interference and misuse. In short it isolates a particular code and data from all other codes and data. A well-defined interface controls the access to that particular code and data."

- a) Abstraction
- b) Polymorphism
- c) Inheritance
- d) Encapsulation

[View Answer](#)

Answer: d

Explanation: By definition.

- a) 10 20
5 25
- b) 20 10
25 5
- c) 10 20
5 125
- d) 20 10
125 5

[View Answer](#)

Answer: c

Explanation: Member function() 'set' is accessed using object of class 'z' values are passed as parameter to 'a' and 'b'. Since, variable 'c1' and 'c2' are public data member of class 'z'. They are accessed using classname.

Output :

10 20
5 125.

9. Correct way of declaration of object of the following class is ?

class name

- a) name n = new name();
- b) n = name();
- c) name n = name();
- d) n = new name();

View Answer

Answer: a

Explanation: None.

10. The data members of a class by default are ?

- a) protected, public
- b) private, public
- c) private
- d) public

View Answer

Answer: c

Explanation: None.

- a) Syntax error
- b) {0} is in city{1} harsh new delhi
- c) harsh is in new delhi
- d) Run successfully prints nothing

View Answer

Answer: c

Explanation: Member function show() accessed using object of class 'z' which is 'n' as object.member().

Output :

```
harsh is in new delhi.
```

- a) Object creation on class csharp
- b) Create an object of type csharp on heap or on stack depending on the size of object
- c) create a reference c on csharp and an object of type csharp on heap
- d) create an object of type csharp on stack

View Answer

Answer: c

Explanation: None.

- a) Code runs successfully prints nothing
- b) Code runs and prints "Csharp"
- c) Syntax error as t is unassigned variable which is never used
- d) None of the mentioned

View Answer

Answer: c

Explanation: object of class test should be declared as test t = new test();

```
test t = new test();  
t.print();  
Console.ReadLine();
```

C# Questions & Answers – Reference Variables and Assignment

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] { 1 , 2 , 3 , 4 , 5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

1. Which reference modifier is used to define reference variable?

- a) &
- b) ref
- c) #
- d) \$

View Answer

Answer: b

Explanation: None.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] { 1 , 2 , 3 , 4 , 5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
```

```

11.         array[i] = array[i] + 5;
12.         Console.WriteLine(array[i] + " ");
13.     }
14. }

```

- a) 5
- b) 0
- c) 20
- d) 25

View Answer

Answer: d

Explanation: Here 'a' = 5 .Copy of variable is passed as reference to parameter 'a'.

Output:

25.

3. Select the output for the following set of code :

```

1.  static void Main(string[] args)
2.  {
3.      int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.      fun1(ref arr);
5.      Console.ReadLine();
6.  }
7.  static void fun1(ref int[] array)
8.  {
9.      for (int i = 0; i < array.Length; i++)
10.     {
11.         array[i] = array[i] + 5;
12.         Console.WriteLine(array[i] + " ");
13.     }
14. }

```

- a) 6 7 8 9 10
- b) 15 17 8 8 20
- c) 15 17 8 29 20
- d) Syntax error while passing reference of array variable.

View Answer

Answer: a

Explanation: array 'arr' after declaration is passed as reference parameter.

a[0] = 1 + 5 = 6.

a[1] = 2 + 5 = 7.

.

.

a[4] = 5 + 5 = 10.

Output :

15 17 8 29 20.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

a) Result before swap is: 20 10

Result after swap is: 20 10

b) Result before swap is: 10 20

Result after swap is:20 10

c) Result before swap is: 10 20

Result after swap is:10 20

d) Result before swap is: 20 10

Result after swap is:10 20

View Answer

Answer: b

Explanation: Makes use of call by reference parameter.

Output:

```
Result before swap is: 10 20.
Result after swap is:20 10.
```

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
```

```

7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }

```

- a) numbers are : 2 4 6 8 10
- b) numbers are : 3 5 7 9 11
- c) numbers are : 2 3 4 5 6
- d) None of the mentioned

View Answer

Answer: b

Explanation: Those numbers divisible by 2 are 2,4,6,8,10 and when condition of loop is executed it increments by 1.

i.e for $x[1] = 2\%2 == 0$. So, $x[1] = 2 + 1 = 3$.

$x[3] = 4\%2 == 0$. So, $x[3] = 4 + 1 = 5$ and so on.

Output :

3 5 7 9 11.

advertisement

3. Select the output for the following set of code :

```

1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] { 1 , 2 , 3 , 4 , 5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }

```

6. Select the wrong statement about 'ref' keyword in C#?

- a) References can be called recursively
- b) The 'ref' keyword causes arguments to be passed by reference

- c) When 'ref' are used, any changes made to parameters in method will be reflected in variable when control is passed back to calling method
d) All of above mentioned

View Answer

Answer: a

Explanation: None.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1,2,3,4,5};
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

7. Select correct differences between '=' and '==' in C#.

- a) '=' operator is used to assign values from one variable to another variable
'=' operator is used to compare value between two variables
b) '=' operator is used to assign values from one variable to another variable
'==' operator is used to compare value between two variables
c) No difference between both operators
d) None of the mentioned

View Answer

Answer: b

Explanation: None.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1,2,3,4,5};
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
```

```

8.  {
9.      for (int i = 0; i < array.Length; i++)
10.     {
11.         array[i] = array[i] + 5;
12.         Console.WriteLine(array[i] + " ");
13.     }
14. }

```

- a) It is zero
- b) It is not zero
- c) Infinite loop
- d) None of the mentioned

View Answer

Answer: b

Explanation: The operator '=' used is not comparison operator it is assignment operator. Since value assigned to 'X' = 0. So, '0' value is stored in 'X' and with the help of if condition implementation it is converted to 'false' which directly means It is not zero but '1' which means 'true'.

3. Select the output for the following set of code :

```

1.  static void Main(string[] args)
2.  {
3.      int[] arr = new int[] {1, 2, 3, 4, 5};
4.      fun1(ref arr);
5.      Console.ReadLine();
6.  }
7.  static void fun1(ref int[] array)
8.  {
9.      for (int i = 0; i < array.Length; i++)
10.     {
11.         array[i] = array[i] + 5;
12.         Console.WriteLine(array[i] + " ");
13.     }
14. }

```

- a) 12
- b) 6
- c) 18
- d) Compile time error

View Answer

Answer: c

Explanation: $X* = X/Y$.

$X = x*(X/Y)$.

Output:

18.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1,2,3,4,5};
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

- a) 4 2
- b) 0 4
- c) 4 0
- d) None of mentioned

View Answer

Answer: c

Explanation: $x = x - b$ and $b = b/(x*b)$.

Output:

4 0

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1,2,3,4,5};
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
```

```
11.         array[i] = array[i] + 5;
12.         Console.WriteLine(array[i] + " ");
13.     }
14. }
```

11. What is output for the following set of expression?

int a+= (float) b/= (long)c.

- a) float
- b) int
- c) long
- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

- a) 8 2 32
- b) 32 4 8
- c) 32 2 8
- d) Compile time error

View Answer

Answer: d

Explanation: Exception handling error of dividing by zero.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
```

```
3.      int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.      fun1(ref arr);
5.      Console.ReadLine();
6.  }
7.  static void fun1(ref int[] array)
8.  {
9.      for (int i = 0; i < array.Length; i++)
10.     {
11.         array[i] = array[i] + 5;
12.         Console.WriteLine(array[i] + " ");
13.     }
14. }
```

- a) 8 2 32
- b) 32 4 8
- c) 32 2 8
- d) Compile time error

View Answer

Answer: c

Explanation: $x /= b /= C$ is $x = x * c / b$.

Output:

32 2 8.

C# Questions & Answers – Methods in Class

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
9.     Console.WriteLine("4");
10. }
11. static void m()
12. {
13.     Console.WriteLine("3");
14.     Mul();
15. }
```

- a) 125 25
- b) 25 125
- c) Compile time error
- d) 0 0

View Answer

Answer: b

Explanation: The value of variable a is passed by value while value of variable s and c is passed by reference.

Output:

```
25 125.
```

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
```

```
9.      Console.WriteLine("4");
10. }
11. static void m()
12. {
13.      Console.WriteLine("3");
14.      Mul();
15. }
```

2. Which of following statements are correct about functions?

- a) C# allows a function to have arguments with default values
- b) Redefining a method parameter in the method's body causes an exception
- c) C# allows function to have arguments with default values
- d) Omitting the return type in method definition results into exception

View Answer

Answer: a

Explanation: None.

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.      Mul();
4.      m();
5.      Console.ReadLine();
6. }
7. static void Mul()
8. {
9.      Console.WriteLine("4");
10. }
11. static void m()
12. {
13.      Console.WriteLine("3");
14.      Mul();
15. }
```

- a) 4 3 3
- b) 4 4 3
- c) 4 3 4
- d) 3 4 4

View Answer

Answer: c

Explanation: First Mul() will be executed to print the number '4' after that function m() will be executed to print the number '3' and at last mentioned function Mul() will be executed to print the statement 4 to return the output as 4 3 4.

Output:

4 3 4.

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
9.     Console.WriteLine("4");
10. }
11. static void m()
12. {
13.     Console.WriteLine("3");
14.     Mul();
15. }
```

- a) HI HI HI
- b) HI
- c) Stack overflow exception
- d) Compile time error

View Answer

Answer: c

Explanation: Control of statement when enters for once in m() does not go out, then it executes again and again inside the block until stack overflow exception occurs.

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
9.     Console.WriteLine("4");
```



```

10. }
11. static void m()
12. {
13.     Console.WriteLine("3");
14.     Mul();
15. }

```

View Answer

Answer: b

Explanation: Correct way of declaration of function is defined as return_type name of function(return type).

3. What is output of the code?

```

1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
9.     Console.WriteLine("4");
10. }
11. static void m()
12. {
13.     Console.WriteLine("3");
14.     Mul();
15. }

```

- a) 35.78
- 10
- b) 10
- 35.00
- c) 10
- 35.78
- d) None of the mentioned

View Answer

Answer: c

Explanation: 'int' datatype is sub datatype of 'double'. Hence, when first part of func() is executed it is integer part and hence when second part is executed it is double.

Output:

advertisement

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
9.     Console.WriteLine("4");
10. }
11. static void m()
12. {
13.     Console.WriteLine("3");
14.     Mul();
15. }
```

7. How many values does a function return?

- a) 0
- b) 2
- c) 1
- d) any number of values

View Answer

Answer: c

Explanation: A method can return only either single value or no value if no then it's declared as void method();

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
9.     Console.WriteLine("4");
10. }
```

```
11. static void m()  
12. {  
13.     Console.WriteLine("3");  
14.     Mul();  
15. }
```

- a) hi hi
 - b) hi
 - c) Stack overflow exception
 - d) None of the mentioned
- View Answer

Answer: c

Explanation: If loop never gets over, it will execute continuously. The control never goes out of 'if' statement.

Output: hi

hi
.
.
.

stack overflow exception

3. What is output of the code?

```
1. static void Main(string[] args)  
2. {  
3.     Mul();  
4.     m();  
5.     Console.ReadLine();  
6. }  
7. static void Mul()  
8. {  
9.     Console.WriteLine("4");  
10. }  
11. static void m()  
12. {  
13.     Console.WriteLine("3");  
14.     Mul();  
15. }
```

9. Which return statement correctly returns the output:

- a) public int cube(int x)
{
return (x + x);
}
- b) public int cube(int x)
return (x + x);

c) public int cube(int x)

```
{  
return x + x;  
}
```

d) None of mentioned

View Answer

Answer: a

Explanation: The correct syntax of return statement is defined within block of statements as { return(statement);}.

3. What is output of the code?

```
1. static void Main(string[] args)  
2. {  
3.     Mul();  
4.     m();  
5.     Console.ReadLine();  
6. }  
7. static void Mul()  
8. {  
9.     Console.WriteLine("4");  
10. }  
11. static void m()  
12. {  
13.     Console.WriteLine("3");  
14.     Mul();  
15. }
```

a) Compile time error

b) hi

c) hi infinite times

d) None of the mentioned

View Answer

Answer: a

Explanation: invalid definition of function p() inside main().

C# Questions & Answers – Destructors in Class

1. Which operator among the following signifies the destructor operator?

- a) ::
- b) :
- c) ~
- d) &

View Answer

Answer: c

Explanation: None.

2. The method called by clients of a class to explicitly release any resources like network,connection,open files etc.When the object is no longer required?

- a) Finalize()
- b) End()
- c) Dispose()
- d) Close()

View Answer

Answer: c

Explanation: Dispose() is only method called by clients of a class to explicitly release any resource like network connection,open files etc.when object is no longer required.Hence,Dispose() provides programmer with such programming control.

3. Name a method which has the same name as that of class and which is used to destroy objects also called automatically when application is finally on process of being getting terminated.

- a) Constructor
- b) Finalize()
- c) Destructor
- d) End

View Answer

Answer: c

Explanation: Definition of destructor.

4. Which of the following statements are correct?

- a) There is one garbage collector per program running in memory
- b) There is one common garbage collector for all programs
- c) To garbage collect an object set all references to it as null
- d) Both There is one common garbage collector for all programs & To garbage collect an object set all references to it as null

View Answer

Answer: d

Explanation: None.

5. Operator used to free the memory when memory is allocated ?

- a) new
- b) free
- c) delete
- d) none of the mentioned

View Answer

Answer: c

Explanation: 'New' is used to allocate memory in the constructors.Hence,we should use 'delete' to free that memory.

6. Select wrong statement about destructor in C#?

- a) A class can have one destructor only
- b) Destructors cannot be inherited or overloaded
- c) Destructors can have modifiers or parameters
- d) All of the mentioned

View Answer

Answer: c

Explanation: None.

- a) 0 0
- b) 10.5 0
- c) Compile time error
- d) 10.5 5.5

View Answer

Answer: d

Explanation: First constructor 'sample' is called and hence then destructor '~sample' is evaluated.

Output :

10.5, 5.5

8. What is the return type of destructor ?

- a) int
- b) void
- c) float
- d) none of the mentioned

View Answer

Answer: d

Explanation: Destructors do not have any return type not even void.

- a) 0
- b) 180
- c) Compile time error
- d) None of the mentioned

View Answer

Answer: c

Explanation: We cannot use any kind of modifier with destructor.

- a) 0
- b) Code executes successfully but prints nothing
- c) Compile time error
- d) 180

View Answer

Answer: d

Explanation: None.

Output:

180.

C# Questions & Answers – Array and Initialization

```
1. int[][]a = new int[2][];  
2. a[0] = new int[3]{3, 4, 2};  
3. a[1] = new int[2]{8, 5};  
4. foreach( int[]i in a)  
5. {  
6. /* add for loop */  
7. console.write( j+ " ");  
8. console.WriteLine();  
9. }
```

- a) 0,0,0 4,4,4 8,8,8
- b) 4,4,4 8,8,8 12,12,12
- c) 8,8,8 12,12,12 16,16,16
- d) 0,0,0 1,1,1, 2,2,2

View Answer

Answer: a

Explanation: Since, with each value of 'i' the value of 'j' is executed three times i.e for i=0, j=0, 0, 0, i=1, j=2, 2, 2.

Output:

0, 0, 0 4, 4, 4 8, 8, 8.

```
1. int[][]a = new int[2][];  
2. a[0] = new int[3]{3, 4, 2};  
3. a[1] = new int[2]{8, 5};  
4. foreach( int[]i in a)  
5. {  
6. /* add for loop */  
7. console.write( j+ " ");  
8. console.WriteLine();  
9. }
```

- a) M L
- b) U L
- c) L M
- d) A B

View Answer

Answer: c

Explanation: “++” increments the value of character by 1. A and B are given values K and 76, when we use increment operator their values increments by 1, A and B becomes L and M.

Output:

L, M.

```
1. int[][]a = new int[2][];
2. a[0] = new int[3]{3, 4, 2};
3. a[1] = new int[2]{8, 5};
4. foreach( int[]i in a)
5. {
6. /* add for loop */
7. console.write( j+ " ");
8. console.writeline();
9. }
```

- a) foreach (int j = 1;j(<)(a(0).GetUpperBound)); (j++));
- b) foreach (int j = 1;j(<)(a.GetUpperBound(0)); (j++));
- c) foreach (int j in a.Length);
- d) foreach (int j in i);

View Answer

Answer: d

Explanation: None.

```
1. int[][]a = new int[2][];
2. a[0] = new int[3]{3, 4, 2};
3. a[1] = new int[2]{8, 5};
4. foreach( int[]i in a)
5. {
6. /* add for loop */
7. console.write( j+ " ");
8. console.writeline();
9. }
```

- a) 98
- b) 89
- c) 88
- d) 84

View Answer

Answer: b

Explanation: Type casting a larger variable into a smaller variable results in modules of larger variable by range of smaller variable. a is '345.09' which is larger than byte range ie -128 to 127.

Output :

89.

```
1. int[][]a = new int[2][];
2. a[0] = new int[3]{3, 4, 2};
```



```

3. a[1] = new int[2]{8, 5};

4. foreach( int[] i in a)

5. {

6. /* add for loop */

7. console.write( j+ " ");

8. console.writeline();

9. }

```

5. Which statement is correct about following c#.NET code ?

```
int[] a= {11, 3, 5, 9, 6};
```

- a) 'a' is a reference to the array created on stack
- b) 'a' is a reference to an object created on stack
- c) 'a' is a reference to an object of a class that compiler derives from 'System.Array' class
- d) None of the mentioned

View Answer

Answer: c

Explanation: A perfect way of defining single array in C# which is derived automatically from class 'System.Array'.

```

1. int[][]a = new int[2][];

2. a[0] = new int[3]{3, 4, 2};

3. a[1] = new int[2]{8, 5};

4. foreach( int[] i in a)

5. {

6. /* add for loop */

7. console.write( j+ " ");

8. console.writeline();

9. }

```

6. What is the advantage of using 2D jagged array over 2D rectangular array?

- a) Easy initialization of elements
- b) Allows unlimited elements as well as rows which had '0' or are empty in nature
- c) All of the mentioned
- d) None of the mentioned

View Answer

Answer: b

Explanation: In many applications where 2 dimensional arrays are used, not all rows need to have all the elements i.e they are sparse. Many rows have 0 elements. In such cases it is better to use 2D jagged arrays as they allow unequal number of elements in each row and also allow for empty rows.

```

1. int[][]a = new int[2][];

2. a[0] = new int[3]{3, 4, 2};

3. a[1] = new int[2]{8, 5};

4. foreach( int[] i in a)

5. {

```

```

6. /* add for loop */
7. console.write( j+ " ");
8. console.writeline();
9. }

```

7. Which statement is correct about following set of code ?

```
int[, ]a={{5, 4, 3},{9, 2, 6}};
```

- a) 'a' represents 1-D array of 5 integers
- b) a.GetUpperBound(0) gives 9
- c) 'a' represents rectangular array of 2 columns and 3 arrays
- d) a.GetUpperBound(0) gives 2

View Answer

Answer: c

Explanation: By definition.

```

1. int[][]a = new int[2][];
2. a[0] = new int[3]{3, 4, 2};
3. a[1] = new int[2]{8, 5};
4. foreach( int[]i in a)
5. {
6. /* add for loop */
7. console.write( j+ " ");
8. console.writeline();
9. }

```

- a) Compile time error
- b) Run time error
- c) Code runs successfully but prints nothing
- d) Code runs successfully and prints given on console

View Answer

Answer: d

Explanation: Object 'p' makes a call to invoke function display() and hence consecutively prints the output. Array 'a' is declared with elements again object 'p' makes a call to display() and hence, consecutively prints the output with given elements.

Output:

```

ARRAY IS HAVING:2
ARRAY IS HAVING:3
ARRAY IS HAVING:8
elements added are:
ARRAY IS HAVING:2
ARRAY IS HAVING:56
ARRAY IS HAVING:78
ARRAY IS HAVING:66

```

```

1. int[][]a = new int[2][];
2. a[0] = new int[3]{3, 4, 2};
3. a[1] = new int[2]{8, 5};

```

```

4. foreach( int[] i in a)
5. {
6.     /* add for loop */
7.     console.write( j+ " ");
8.     console.writeline();
9. }

```

9. Which is the correct way of defining and initializing an array of 3 integers?

- a) `int[] a={78, 54};`
- b) `int[] a;`
`a = new int[3];`
`a[1] = 78;`
`a[2] = 9;`
`a[3] = 54;`
- c) `int[] a;`
`a = new int{78, 9, 54};`
- d) `int[] a;`
`a = new int[3]{78, 9, 54};`

View Answer

Answer: d

Explanation: None.

```

1. int[][] a = new int[2][];
2. a[0] = new int[3]{3, 4, 2};
3. a[1] = new int[2]{8, 5};
4. foreach( int[] i in a)
5. {
6.     /* add for loop */
7.     console.write( j+ " ");
8.     console.writeline();
9. }

```

10. Choose selective differences between an array in c# and array in other programming languages.

- a) Declaring array in C# the square bracket([]) comes after the type but not after identifier
- b) It is necessary to declare size of an array with its type
- c) No difference between declaration of array in c# as well as in other programming languages
- d) All of the mentioned

View Answer

Answer: a

Explanation:

1. When declaring an array in C#, the square brackets ([]) come after the type, not the identifier. Brackets after the identifier is not legal syntax in C#.

example :

```
int[] IntegerArray;
```

2. The size of the array is not part of its type as it is in the C language. This allows to declare an array and assign any array of int objects to it, regardless of the array's length.

```
int[] IntegerArray;  
IntegerArray = new int[10];  
IntegerArray = new int[50];
```

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C# Questions & Answers – Basic Operation on Strings

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

1. Which of the following string() method are used to compare two strings with each other?

- a) CopyTo()
- b) Copy()
- c) Compare()
- d) CompareTo()

View Answer

Answer: b

Explanation: Creates a new string by copying one string to another.

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

2. Choose the base class for string() method :

- a) System.Array
- b) System.char
- c) System.String
- d) None of the mentioned

View Answer

Answer: c

Explanation: String is an alias for the predefined "System.string" class from which most of the string() methods are derived.

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0; i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

- a) Cshar
- b) CsharpP
- c) Csharp
- d) Cshrap

View Answer

Answer: c

Explanation: Insertion of character 'a' at position '3' using insert() which returns a new string with a substring inserted at a specified location.

Output:

Csharp

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0; i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

4. Which of the following statement is correct about a string in C#.NET?

- a) The System.Array class is used to represent a string
- b) A string has a zero-based index
- c) A number cannot be represented in the form of a string
- d) A string is mutable because it can be modified once it has been created

View Answer

Answer: b

Explanation: None.

3. What is output for the following set of code:

```

1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0; i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }

```

- a) Equal
 Unequal
 b) Unequal
 Equal
 c) Equal
 Equal
 d) Unequal
 Unequal
 View Answer

Answer: d

Explanation: In first comparison it is being checked either two strings are equal or not but in second comparison it is checked whether two references are equal or not.

Output:

```

Unequal
Unequal

```

3. What is output for the following set of code:

```

1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0; i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }

```

- a) HelloI LoveComputerScience
 b) Hello I Love ComputerScience
 c) Compile time error
 d) Hello
 View Answer

Answer: b

Explanation: Here '+' defined operator works as concatenation for strings.

Output :

Hello I Love ComputerScience.

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

7. Correct way to find if contents of two strings are equal ?

- a) if(s1 = s2)
- b) if(s1 != s2)
- c) if(strcmp (s1 ,s2))
- d) if (s1 is s2)

View Answer

Answer: c

Explanation: "==" operator used to compare length of two strings and strcmp() is the inbuilt method derived from string class.

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

8. Which of the following statements are correct?

- a) String is value type
- b) String literals can contain any character literal including escape sequences
- c) The equality operators are defined to compare values of string objects as well as references
- d) All of the mentioned

View Answer

Answer: b

Explanation: None

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0; i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

9. Which of these operators can be used to concatenate two or more String objects?

- a) +
- b) +=
- c) &
- d) ||

View Answer

Answer: a

Explanation:

```
string s1 = "Hello" + " I " + "Love" + " ComputerScience ";
Console.WriteLine(s1);
Hello I Love ComputerScience.
```

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0; i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

10. The Method use to remove white space from string?

- a) Split()
- b) Substring()
- c) Trim()
- d) TrimStart()

View Answer

Answer: c

Explanation: Perfectly removes a whitespace from string whereas TrimStart() removes a string of characters from the end of the string.

C# Questions & Answers – String Class with Description

1. What is the String in C# meant for?

- a) Variable
- b) Character Array
- c) Object
- d) Class

View Answer

Answer: c

Explanation: C# Supports a predefined reference type known as string. When we declare a string using string type we are declaring the object to be of type "System.String".

2. What does the term 'immutable' means in term of string objects?

- a) We can modify characters included in the string
- b) We cannot modify characters contained in the string
- c) We cannot perform various operation of comparison, inserting, appending etc
- d) None of the mentioned

View Answer

Answer: b

Explanation: String objects are 'immutable' means we cannot modify the characters contained in string. Also operation on string produce a modified version of string rather than modifying characters of string.

3. To perform comparison operation on strings supported operations are :

- a) Compare()
- b) Equals()
- c) Assignment '=' operator
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

- a) I
- b) Hello I
- c) Love
- d) H

View Answer

Answer: d

Explanation: 'I' = index position[6] , 'l' = index position[2]. So, $I - l = 6 - 2 = 4 * (\text{index position of p} = 18) = 72$. Character with ASCII Value 72 = 'H'.

Output : H

5. Correct way to convert a string to uppercase using string class method()?

- a) Upper()
- b) ToUpper()
- c) Object.ToUpper()
- d) None of the mentioned

View Answer

Answer: c

Explanation: string s1 = "Hello I Love Csharp ";

Console.WriteLine(s1.ToUpper());

Output: HELLO I LOVE CSHARP.

- a) True True
- b) False False
- c) True 0
- d) False 1

View Answer

Answer: c

Explanation: Equal() checks if two string objects 'obj' and 'obj2' are equal or not and hence returns true or false. Similarly, "CompareTo" operator check two objects and since string obj2 = obj, it returns bool value '0'. Hence, they are equal.

Output :

True 0

- a) hello world
10
- b) hello world
6
- c) hello world
11
- d) hello world
5

View Answer

Answer: c

Explanation: Length() method calculates number of characters in a string. 'Obj2' assumes the value of object 'obj' in itself.

Output:

```
hello world
11
```

- a) 7
- b) 8
- c) 9
- d) 10

View Answer

Answer: b

Explanation: IndexOf() used to find absolute position of a character of substring.

Output:

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8

- a) hello
- b) orld
- c) world
- d) o world

View Answer

Answer: c

Explanation: 'Substring()' extract substrings from a given string using overloaded substring() method provided by string class.

Output:

world

- a) hello hello
- b) hello worn
- c) hello corn
- d) hello

View Answer

Answer: c

Explanation: Replace() method provided by string builder class is used to replace characters.

Output:

```
hello corn
```

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C# Questions & Answers – Comparison of Strings

1. Which of these methods of class String is used to compare two String objects for their equality?

- a) equals()
- b) Equals()
- c) isequal()
- d) Isequal()

View Answer

Answer: a

Explanation: None.

2. Which of these methods is used to compare two strings such that after comparison output returns different integer values as (0 for false, 1 for true)?

- a) Equals ()
- b) == operator
- c) Compare()
- d) None of the mentioned

View Answer

Answer: c

Explanation: The comparison is case sensitive in nature and hence different integer values are returned for different conditions as under :

- 1. zero integer (0), if string s1 equal to string s2.
 - 2. positive integer(+1) , if string s1 greater than s2.
 - 3. Negative integer(-1) , if string s1 is less than s2.
-

3. Which of these methods of class String is used to check whether a substring exists at the beginning of the particular string?

- a) StartsWith()
- b) EndsWith()
- c) Starts()
- d) ends()

View Answer

Answer: a

Explanation: Method startswith() of string class is used to check whether a substring exists in the beginning of string or not.

4. Which of these methods returns the string such that some characters which are specified to be removed from the end of strings are removed from string by mentioning the number of characters to be removed?

- a) Trim()
- b) Remove()
- c) TrimEnd()
- d) Split()

View Answer

Answer: a

Explanation: Removes a string of characters from the end of string by mentioning the number of characters to be removed from the string.

5. What is the value returned by function compareTo() if the invoking string is less than the string compared?

- a) zero
- b) value less than zero
- c) value greater than zero
- d) none of the mentioned

View Answer

Answer: b

Explanation: compareTo() function returns zero when both the strings are equal, it returns a value less than zero if the invoking string is less than the other string being compared and value greater than zero when invoking string is greater than the string compared to.

6. Which of these data type values is returned by equals() method of String class?

- a) char
- b) int
- c) boolean
- d) all of the mentioned

View Answer

Answer: c

Explanation: equals() method of string class returns boolean value true if both the strings are equal and false if they are unequal.

- a) true
- b) false
- c) 0
- d) 1

View Answer

Answer: b

Explanation: StartsWith() method is case sensitive “i” and “I” are treated differently, hence false is stored in a.

Output:

false

- a) true true
- b) false false
- c) true false
- d) false true

View Answer

Answer: a

Explanation: The ‘==’ operator tests the equality of strings and since s1 = “I love You” and also s2 = s1 .So, true is returned .Similarly,Equals() returns true

since the content of both s1 and s2 are equal in nature.

Output :

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true true

- a) zx
- b) xy
- c) zy
- d) yz

View Answer

Answer: c

Explanation: compareTo() function returns zero when both the strings are equal, it returns a value less than zero if the invoking string is less than the other string being compared and value greater than zero when invoking string is greater than the string compared To.4

Output :

zy

- a) 0
- b) 1
- c) -2

d) -1

View Answer

Answer: d

Explanation: Negative integer -1 is returned as 'a' is less than 'b' by CompareTo() method.

Output :

-1

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C# Questions & Answers – Searching and Modifying Strings

1. Which of these methods of class String is used to separate a substring from a String object?

- a) substring()
- b) Substring()
- c) SubString()
- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

- a) IloveCSHARP
- b) I loveCSHARP
- c) Ilove
- d) Ilove CSHARP

View Answer

Answer: d

Explanation: Concat() method is used to join two strings without the use of '+' operator .

Output :

Ilove CSHARP

3. Which of these methods of class are used to remove the leading and backward whitespaces?

- a) startsWith()
- b) trim()
- c) Trim()
- d) doTrim()

View Answer

Answer: c

Explanation: None.

- a) Ilove CSHARP
- b) love CSHARP
- c) ve CSHARP
- d) ve CSARP

View Answer

Answer: c

Explanation: trimstart() removes character mentioned consecutively in front positions not characters in mentioned in between positions.

Output :

ve CSHARP

- a) "Hello Computer"
- b) "HelloComputer"
- c) "Hello Computer"
- d) Hello Computer

View Answer

Answer: c

Explanation: Trim() method is used to remove forward and backward spaces in strings.

Output :

"Hello Computer"

- a) "Hello Bye"
- b) "HelloBye"
- c) Hello Bye
- d) HelloBye

View Answer

Answer: d

Explanation: '+' operator method works in the form of concatenate method() and hence is used to join two strings together.

Output :

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HelloBye

- a) Hello
- b) Hewlo
- c) Helwo
- d) Hewwo

View Answer

Answer: d

Explanation: None.

Output :

Hewwo

8. Which of the following statements is correct?

- a) replace() replace() method replaces last occurrence of a character in invoking strings with another character
- b) replace() method replaces only first occurrence of a character in invoking strings with another character
- c) replace() method replaces all occurrences of one character in invoking strings with another character
- d) none of the mentioned

View Answer

Answer: c

Explanation: By definition.

- a) ove
- b) you
- c) yo
- d) love you

View Answer

Answer: c

Explanation: None.

Output :

yo

d) None of the mentioned View Answer

Answer: c

Explanation:

```
static void Main(string[] args)
{
    String c = "She sold her beauty in one night to someone else";
```

```
int i,j;  
  
i = c.IndexOf("s");  
j = c.IndexOf("s", i + 1);  
Console.WriteLine(i + " " + j);  
Console.ReadLine();  
}
```

Output : 4, 36

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C# Questions & Answers – Operation on Characters

1. Which of these methods of the class String is used to obtain length of String object?

- a) get()
- b) Sizeof()
- c) lengthof()
- d) length()

View Answer

Answer: d

Explanation: Method length() of string class is used to get the length of the object as string.Length and hence invokes the length() method.

2. Which of these methods is an alternative to getChars() that stores the characters in an array of bytes?

- a) getBytes()
- b) GetByte()
- c) giveByte()
- d) Give Bytes()

View Answer

Answer: a

Explanation: getBytes() stores the character in an array of bytes. It uses default character to byte conversions.

3. Which of these methods can be used to convert all characters in a String into a character array?

- a) CharAt()
- b) getChars()
- c) ToCharArray()
- d) All of the mentioned

View Answer

Answer: c

Explanation: None.

- a) x
- b) xy
- c) z
- d) xyz

View Answer

Answer: d

Explanation: String(chars) is a constructor of class string, it initializes string s with the values stored in character array chars, therefore s contains "xyz".

Output :

xyz

- a) Insert()
- b) Add()
- c) Append()
- d) Join()

View Answer

Answer: c

Explanation:

```
static void Main(string[] args)
{
```

```
StringBuilder s = new StringBuilder("object");  
s.Append("Oriented Language");  
Console.WriteLine(s);  
Console.ReadLine();  
}
```

Output : objectOriented Language

- a) 3 5 7
- b) 4 5 6
- c) 3 9 6
- d) 2 4 6

View Answer

Answer: c

Explanation: `indexOf('l')` and `lastIndexOf('o')` are pre defined functions which are used to get the index of first and last occurrence of the character pointed by l and c respectively in the given array.

Output :

3, 9, 6

7. Which of these methods of class String is used to extract all the characters from a String object?

- a) `CHARAT()`
- b) `Remove()`
- c) `charAt()`
- d) `Replace()`

View Answer

Answer: b

Explanation: `Replace()` replaces all instances of a character with a new character while `Remove` extracts characters from the string.

- a) ello
- b) h
- c) hell
- d) none of the mentioned

View Answer

Answer: b

Explanation: The `remove()` deletes characters from the string except the character which is specified with its given position.

Output :

h

9. How is a string typically processed?

- a) On a character by character basis
- b) On a string by string basis
- c) Both On a character by character basis & On a string by string basis
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

10. How to print `\\` on the screen?

- a) `Console.WriteLine("\\");`
- b) `Console.WriteLine(@"\\");`
- c) `Console.WriteLine("\\\\");`
- d) `Console.WriteLine(@"\\\\\\");`

View Answer

Answer: c

Explanation : `Console.WriteLine(@"\\");`

Output :

\\

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C# Questions & Answers – Public & Private Access Modifier

1. Which of these is used as a default specifier for a member of the class if no access specifier is used for it?

- a) private
- b) public
- c) public, within its own class
- d) protected

View Answer

Answer: a

Explanation: By definition if a class has no access specifiers, it defaults to private accessibility.

2. Which of these is used to access members of class before the object of that class is created?

- a) public
- b) private
- c) static
- d) protected

View Answer

Answer: c

Explanation: None.

3. Which of these base classes are accessible to the derived class members?

- a) static
- b) protected
- c) private
- d) Shared

View Answer

Answer: b

Explanation: None.

4. What is the process by which we can control parts of a program that can access the members of a class?

- a) Polymorphism
- b) Abstraction
- c) Encapsulation
- d) Recursion

View Answer

Answer: c

Explanation: By definition.

- a) 48, 30
- b) 48, 0
- c) 0, 0
- d) Compile time error

View Answer

Answer: d

Explanation: variable 'y' is not accessible due to its access level.

Output :

Change private y to public y

- a) 6, 9

b) 5, 9

c) 9, 10

d) 3, 2

View Answer

Answer: b

Explanation: Here, $a = 2$, $a + 1 = 2 + 1 = 3$.

So, $a = 2$, $b = 3$.

$x = 2 + 3 = 5$.

$y = 5 + 3 = 8$.

Similarly, $a = 5$, $b = a + 1 = 4$.

$y = 5 + 4 = 9$.

Output :

5, 9.

a) 10, 20

b) 20, 10

c) 40, 12

d) 5, 40

View Answer

Answer: c

Explanation: `t.sum(t)` sends object 't' as parameter whose variables a & b are multiplied and added by 2 respectively by `sum()` function of class `math`. Hence, a & b become 40 and 12 respectively.

Output :

40, 12

8. Accessibility modifier defined in a class are?

a) public, private, protected

b) public, internal, protected internal

c) public, private, internal, protected internal

d) public, private, protected, internal, protected internal

View Answer

Answer: d

Explanation: None.

9. Choose the statements which are false in nature:

a) The base class member functions can access public member functions of derived class

b) An object of a derived class cannot access private member of the base class

c) Private members of the base class cannot be accessed by derived class member functions or objects of derived class

d) None of the mentioned

View Answer

Answer: a

Explanation: None.

10. Which of these access specifiers must be used for `main()` method?

a) private

b) public

c) protected

d) none of the mentioned

View Answer

Answer: a

Explanation: By default main() is declared private if no other access specifier is used for it.

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C# Questions & Answers – Use of Ref and Out Parameters

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
6.     method1(ref n);
7.     console.WriteLine(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
15. {
16.     num += 20;
17.     console.WriteLine(num);
18. }
```

a) 36, 10

b) 10, 36

c) 0, 0

d) 36, 0

[View Answer](#)

Answer: b

Explanation: Variable 'i' is passed as reference parameter declared with 'ref' modifier and variable 'j' is passed as a output parameter declared with 'out' keyword. Reference parameter used to pass value by reference is the same with out parameter.

Output :

10, 36

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
```

```
6.     method1(ref n);
7.     console.WriteLine(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
15. {
16.     num += 20;
17.     console.WriteLine(num);
18. }
```

2. Statements about 'ref' keyword used in C#.NET are?

- a) The ref keyword causes arguments to be passed by reference
- b) While using 'ref' keyword any changes made to the parameter in the method will be reflected in the variable when control is passed back to the calling method
- c) Ref usage eliminates overhead of copying large data items
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
6.     method1(ref n);
7.     console.WriteLine(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
```

```
15. {  
16.     num += 20;  
17.     console.WriteLine(num);  
18. }
```

a) 1

1

1

1

b) 21

1

21

21

c) 11

21

21

11

d) 21

1

21

21

View Answer

Answer: d

Explanation: None.

Output :

21 1 21 21

3. What will be the output for the given set of code?

```
1. static void main(string[] args)  
2. {  
3.     int n = 1;  
4.     method(n);  
5.     console.WriteLine(n);  
6.     method1(ref n);  
7.     console.WriteLine(n);  
8. }  
9. static void method(int num)  
10. {  
11.     num += 20;  
12.     console.WriteLine(num);  
13. }  
14. static void method1(ref int num)  
15. {
```

```
16.     num += 20;
17.     console.WriteLine(num);
18. }
```

- a) Call by reference
- b) Call by value
- c) Output parameter
- d) parameter arrays

View Answer

Answer: a

Explanation: The following set of code explains swapping of numbers by reference parameters which makes usage of call by reference process.

3. What will be the output for the given set of code?

```
1.  static void main(string[] args)
2.  {
3.      int n = 1;
4.      method(n);
5.      console.WriteLine(n);
6.      method1(ref n);
7.      console.WriteLine(n);
8.  }
9.  static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
15. {
16.     num += 20;
17.     console.WriteLine(num);
18. }
```

- a) 0, 0, 32, 0, 0, 0
- b) 0, 24, 0, 32, 0, 0
- c) 24, 0, 32, 0, 0, 0
- d) 0, 0, 32, 0, 0, 0

View Answer

Answer: b

Explanation: index positions which are assigned the new values are passed as a reference parameter and hence rest positions are filled with zero values.

Output :

0 24 0 32 0 0

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
6.     method1(ref n);
7.     console.WriteLine(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
15. {
16.     num += 20;
17.     console.WriteLine(num);
18. }
```

- a) 4490
- b) 5040
- c) 5400
- d) 3500

View Answer

Answer: b

Explanation: None.

Output:

5040

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
6.     method1(ref n);
7.     console.WriteLine(n);
```

```

8.  }

9.  static void method(int num)

10. {

11.     num += 20;

12.     console.WriteLine(num);

13. }

14. static void method1(ref int num)

15. {

16.     num += 20;

17.     console.WriteLine(num);

18. }

```

- a) 30, 55
- b) 55, 30
- c) Compile time error
- d) 0, 0

View Answer

Answer: c

Explanation: Error occurrence as mismatch in parameter of method() definition. Keyword 'ref' should be used with parameter 'p' as ref int p.

3. What will be the output for the given set of code?

```

1.  static void main(string[] args)

2.  {

3.     int n = 1;

4.     method(n);

5.     console.WriteLine(n);

6.     method1(ref n);

7.     console.WriteLine(n);

8.  }

9.  static void method(int num)

10. {

11.     num += 20;

12.     console.WriteLine(num);

13. }

14. static void method1(ref int num)

15. {

16.     num += 20;

17.     console.WriteLine(num);

```

18. }

8. Keyword used to define call by reference parameter in C# .NET?

- a) &
- b) out
- c) ref
- d) &&

View Answer

Answer: c

Explanation: By definition.

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
6.     method1(ref n);
7.     console.WriteLine(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
15. {
16.     num += 20;
17.     console.WriteLine(num);
18. }
```

- a) ref int a, int b, ref float c
- b) ref int a, ref float c, ref int b
- c) ref int a, ref int b, float c
- d) ref int a, ref int b, ref float c

View Answer

Answer: d

Explanation: static Void main(string[] args)

```
{
int a = 5;
int b = 6;
float c = 7.2f;
math(ref a, ref b, ref c);
console.WriteLine(a + " " + b + " " + c);
```

```
}
```

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
6.     method1(ref n);
7.     console.WriteLine(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
15. {
16.     num += 20;
17.     console.WriteLine(num);
18. }
```

10. Which statement is/are correct?

- a) An argument passed to a ref parameter need not to be initialized first
- b) Variables passed as out arguments need to be initialized prior to being passed
- c) To use a ref parameter, only the calling method must explicitly use the ref keyword
- d) None of the mentioned

View Answer

Answer: d

Explanation: None.

C# Questions & Answers – Use of Variable Number of Arguments

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {" 1 ", 4.0f, " harsh "};
4.     fun(a);
5.     Console.ReadLine();
6. }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " ");
11. }
```

1. The method in which large or variable number of arguments are handled is known as:

- a) Value parameters
- b) Output parameters
- c) Parameter arrays
- d) None of the mentioned

View Answer

Answer: c

Explanation: None.

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {" 1 ", 4.0f, " harsh "};
4.     fun(a);
5.     Console.ReadLine();
6. }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " ");
11. }
```

2. The modifiers used to define an array of parameters or list of arguments:

- a) ref
- b) out

c) param

d) var

[View Answer](#)

Answer: c

Explanation: None.

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {" 1 ", 4.0f, " harsh "};
4.     fun(a);
5.     Console.ReadLine();
6. }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " ");
11. }
```

a) 1 4.0 harsh

b) 1 4

c) 1 4 hars

d) 1 4 harsh

[View Answer](#)

Answer: d

Explanation: 'a' is declared as array of objects which is passed as a parameter to a single method fun() using variable number of parameters.

Output :

```
1 4 harsh
```

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {" 1 ", 4.0f, " harsh "};
4.     fun(a);
5.     Console.ReadLine();
6. }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " ");
```

11. }

4. Which of the following statements are correct?

- a) C SHARP allows a function to have arguments with default values
- b) C SHARP allows a function to have variable number of arguments
- c) Params is used to specify the syntax for a function having arguments
- d) Omitting the return value type in method definition results into an exception

View Answer

Answer: b

Explanation: None.

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {" 1 ", 4.0f, " harsh "};
4.     fun(a);
5.     Console.ReadLine();
6. }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " ");
11. }
```

- a) Compile time error
- b) 3, 4, 7, 8, 5
- c) 3, 4, 7, 8, 5, 1, 2, 3, 4, 5
- d) 4, 6, 10, 12, 5

View Answer

Answer: d

Explanation: Passing of array parameters declared in main() and hence adding elements of array passed using param to another array k[] declared in fun() method.

Output :

4, 6, 10, 12, 5

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {" 1 ", 4.0f, " harsh "};
4.     fun(a);
5.     Console.ReadLine();
6. }
```

```
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.         Console.WriteLine(b[i] + " ");
11. }
```

- a) 1, 2, 3, 4, 5
- b) 5, 10, 15, 20, 25
- c) 5, 25, 125, 625, 3125
- d) 6, 12, 18, 24, 30

View Answer

Answer: b

Explanation: None.

Output :

5, 10, 15, 20, 25.

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {" 1 ", 4.0f, " harsh "};
4.     fun(a);
5.     Console.ReadLine();
6. }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.         Console.WriteLine(b[i] + " ");
11. }
```

- a) Compile time error
- b) 2, 21, 34, 4, 6, 46, 88, 90
- c) 2, 4, 34, 46, 6, 88, 90
- d) 2, 34, 46, 88, 90

View Answer

Answer: d

Explanation: None.

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {" 1 ", 4.0f, " harsh "};
4.     fun(a);
```

```
5.      Console.ReadLine();
6.  }
7.  static void fun(params object[] b)
8.  {
9.      for (int i = 0; i < b.Length - 1; i++)
10.         Console.WriteLine(b[i] + " ");
11.  }
}
```

View Answer

Answer: d

Explanation: None.

3. What will be the output for the given set of code ?

```
1.  static void Main(string[] args)
2.  {
3.      object[] a = {" 1 ", 4.0f, " harsh "};
4.      fun(a);
5.      Console.ReadLine();
6.  }
7.  static void fun(params object[] b)
8.  {
9.      for (int i = 0; i < b.Length - 1; i++)
10.         Console.WriteLine(b[i] + " ");
11.  }
```

a) 67 83 72 65 82 80

b) P R A H S C

c) C S H A R P

d) 80 82 65 72 83 67

View Answer

Answer: c

Explanation: None.

3. What will be the output for the given set of code ?

```
1.  static void Main(string[] args)
2.  {
3.      object[] a = {" 1 ", 4.0f, " harsh "};
4.      fun(a);
5.      Console.ReadLine();
```

```
6.  }  
7.  static void fun(params object[] b)  
8.  {  
9.      for (int i = 0; i < b.Length - 1; i++)  
10.         Console.WriteLine(b[i] + " ");  
11. }
```

- a) A, B, C, D, E, F
 - b) F, E, D, C, B, A
 - c) f, e, d, c, b
 - d) b, c, d, e, f
- View Answer

Answer: c

Explanation: None.

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C# Questions & Answers – Polymorphism

1. The capability of an object in Csharp to take number of different forms and hence display behaviour as according is known as:

- a) Encapsulation
- b) Polymorphism
- c) Abstraction
- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

- a) 100 150 1000
- b) 1000 150 1000
- c) 100 150 1000
- d) 100 150 100

View Answer

Answer: c

Explanation: sample.x = 100

sample.y = 150

variable within scope of main() is x = 1000

Output :

100 150 1000

3. Which of the following keyword is used to change data and behavior of a base class by replacing a member of the base class with a new derived member?

- a) Overloads
- b) Overrides
- c) new
- d) base

View Answer

Answer: c

Explanation: None.

4. Correct way to overload +operator?

- a) public sample operator + (sample a, sample b)
- b) public abstract operator + (sample a,sample b)
- c) public static sample operator + (sample a, sample b)
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

- a) The subject class version of a() method gets called using sample class reference which holds subject class object
- b) subject class hides a() method of base class
- c) The code replaces the subject class version of a() with its math class version
- d) None of the mentioned

View Answer

Answer: d

Explanation: None.

- a) f1() of derived class get executed
- f2() of derived class get executed
- f3() of base class get executed
- b) f1() of base class get executed
- f2() of derived class get executed
- f3() of base class get executed
- c) f1() of base class get executed
- f2() of derived class get executed
- f3() of derived class get executed
- d) f1() of derived class get executed
- f2() of base class get executed
- f3() of base class get executed

View Answer

Answer: b

Explanation:None.

7. Which of the following statements is correct?

- a) Each derived class does not have its own version of a virtual method
- b) If a derived class does not have its own version of virtual method then one in base class is used
- c) By default methods are virtual
- d) All of the mentioned

View Answer

Answer: c

Explanation: None.

-
- d) None of the mentioned

View Answer

Answer: c

Explanation: None.

9. Selecting appropriate method out of number of overloaded methods by matching arguments in terms of number ,type and order and binding that selected method to object at compile time is called?

- a) Static binding
- b) Static Linking
- c) Compile time polymorphism
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

10. Wrong statement about run time polymorphism is?

- a) The overridden base method should be virtual,abstract or override
- b) An abstract method is implicitly a virtual method
- c) An abstract inherited property cannot be overridden in a derived class
- d) Both override method and virtual method must have same access level modifier

View Answer

Answer: c

Explanation: None.

C# Questions & Answers – Structures

- a) New structure can be inherited from struct book
 - b) When the program terminates, variable b will get garbage collected
 - c) The structure variable 'b' will be created on the stack
 - d) When the program terminates, variable b will get garbage collected
- View Answer

Answer: c

Explanation: None.

- a) trial object referred by z is created on the stack
 - b) z is created on the heap
 - c) Both s and z will be created on the heap
 - d) s will be created on the stack
- View Answer

Answer: d

Explanation: None.

3. Choose the correct statement among the following which supports the fact that C# does not allow the creation of empty structures?
- a) C#.NET supports creation of abstract user-defined data types using structures
 - b) By having empty structures, it would mean that the new data types have no data associated with, which does not make any sense in C#.NET
 - c) Basic reason to create structures is the inability to represent real life objects using standard data types offered by the language
 - d) All of the mentioned
- View Answer

Answer: d

Explanation: Basic definition of structures in C#.NET.

4. Choose the correct statement about structures as to why they are defined as value types but not reference types?
- a) Since space required for structure variables is allocated on stack which is a form of memory that is automatically available when a variable to be used is in scope.
 - b) Structures generally are used to represent user defined data types that consists of small amount of data in them. Hence using stack for declaration of such variables is not a problem.
 - c) All of the mentioned
 - d) None of the mentioned
- View Answer

Answer: c

Explanation: None.

5. Choose the wrong statement about structures in C#.NET?
- a) Structures can be declared within a procedure
 - b) Structures can implement an interface but they cannot inherit from another structure
 - c) Structure members cannot be declared as protected
 - d) A structure cannot be empty
- View Answer

Answer: a

Explanation: None.

- a) `abc e = new abc();`
- b) `abc();`
- c) `abc e;`

e = new abc;
d) abc e = new abc;
View Answer

Answer: a
Explanation: None.

d) All of the mentioned
View Answer

Answer: a
Explanation: None.

8. When does a structure variable get destroyed?
a) When no reference refers to it, it will get garbage collected
b) Depends on whether it is created using new or without new operator
c) As variable goes out of the scope
d) Depends on either we free its memory using free() or delete()
View Answer

Answer: c
Explanation: None.

a) 24 bytes
b) 8 bytes
c) 16 bytes
d) 12 bytes
View Answer

Answer: d
Explanation: None.
Output –

12 bytes

a) 10
10
b) 20
10
c) 10
20
d) 20
20
View Answer

Answer: d
Explanation: None.
Output –

20
20

11. Select the wrong statements among the following?
a) A structure can contain properties
b) A structure can contain constructors
c) A structure can contain protected data members
d) A structure can contain constants

View Answer

Answer: c

Explanation: None.

- a) Elements of 'q' will be copied into corresponding elements of p.
- b) Address stored in q will get copied into p
- c) Address of first element of q will get copied into p
- d) Once assignment is over, q will go out of scope and hence get exited forever

View Answer

Answer: a

Explanation: None.

- a) 10 10
- b) 10 15
- c) 15 10
- d) 15 15

View Answer

Answer: b

Explanation: None.

Output:

10 15

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C# Questions & Answers – Enumerations

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int
2. {
3.     sunday = -3,
4.     monday,
5.     tuesday
6. }
7. Console.WriteLine((int)days.sunday);
8. Console.WriteLine((int)days.monday);
9. Console.WriteLine((int)days.tuesday);
```

1. Choose the correct statements about enum used in C#.NET?

- a) An enum variable cannot have a private access modifier
- b) An enum variable can be defined inside a class or a namespace
- c) An enum variable cannot have a protected access modifier
- d) An enum variable cannot have a public access modifier

View Answer

Answer: c

Explanation: None.

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int
2. {
3.     sunday = -3,
4.     monday,
5.     tuesday
6. }
7. Console.WriteLine((int)days.sunday);
8. Console.WriteLine((int)days.monday);
9. Console.WriteLine((int)days.tuesday);
```

2. Which among the following cannot be used as a datatype for an enum in C#.NET?

- a) short
- b) double
- c) int
- d) all of the mentioned

View Answer

Answer: b

Explanation: None.

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int
2. {
3.     sunday = -3,
4.     monday,
5.     tuesday
6. }
7. Console.WriteLine((int)days.sunday);
8. Console.WriteLine((int)days.monday);
9. Console.WriteLine((int)days.tuesday);
```

- a) -3 0 1
- b) 0 1 2
- c) -3 -2 -1
- d) sunday monday tuesday

View Answer

Answer: c

Explanation: None.

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int
2. {
3.     sunday = -3,
4.     monday,
5.     tuesday
6. }
7. Console.WriteLine((int)days.sunday);
8. Console.WriteLine((int)days.monday);
9. Console.WriteLine((int)days.tuesday);
```

- a) byte value cannot be assigned to enum elements
- b) enum elements should always take successive values
- c) enum must always be of int type
- d) When the valid range of byte exceeds, the compiler will report an error

View Answer

Answer: d

Explanation: None.

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int
2. {
```

```
3.    sunday = -3,  
4.    monday,  
5.    tuesday  
6. }  
7. Console.WriteLine((int)days.sunday);  
8. Console.WriteLine((int)days.monday);  
9. Console.WriteLine((int)days.tuesday);
```

5. Wrong statement about enum used in C#.NET is?

- a) An enum can be declared inside a class
- b) An object cannot be assigned to an enum variable
- c) An enum can be declared outside a class
- d) An enum can have Single and Double values

View Answer

Answer: d

Explanation: None.

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int  
2. {  
3.    sunday = -3,  
4.    monday,  
5.    tuesday  
6. }  
7. Console.WriteLine((int)days.sunday);  
8. Console.WriteLine((int)days.monday);  
9. Console.WriteLine((int)days.tuesday);
```

- a) 11
- b) 1
- c) 2
- d) compile time error

View Answer

Answer: d

Explanation: It will report an error since enum element cannot be assigned a value outside the enum declaration.

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int  
2. {  
3.    sunday = -3,  
4.    monday,  
5.    tuesday
```

```
6. }  
7. Console.WriteLine((int) days.sunday);  
8. Console.WriteLine((int) days.monday);  
9. Console.WriteLine((int) days.tuesday);
```

- a) 2 10
- b) 2 11
- c) 1 11
- d) 1 5

View Answer

Answer: c

Explanation: None.

Output:

```
1 11
```

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int  
2. {  
3.     sunday = -3,  
4.     monday,  
5.     tuesday  
6. }  
7. Console.WriteLine((int) days.sunday);  
8. Console.WriteLine((int) days.monday);  
9. Console.WriteLine((int) days.tuesday);
```

- a) -1
- b) 0
- c) a
- d) letters.a

View Answer

Answer: c

Explanation: None.

Output:

```
a
```

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int  
2. {  
3.     sunday = -3,  
4.     monday,  
5.     tuesday
```

```
6. }  
7. Console.WriteLine((int) days.sunday);  
8. Console.WriteLine((int) days.monday);  
9. Console.WriteLine((int) days.tuesday);
```

- a) 0
- b) black
- c) red
- d) 1

View Answer

Answer: c

Explanation: None.

Output:

red

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int  
2. {  
3.     sunday = -3,  
4.     monday,  
5.     tuesday  
6. }  
7. Console.WriteLine((int) days.sunday);  
8. Console.WriteLine((int) days.monday);  
9. Console.WriteLine((int) days.tuesday);
```

10. Choose the correct statement about enum used in C#.NET ?

- a) By default the first enumerator has a value equal to the number of elements present in the list
- b) Values of the enum elements cannot be populated from database
- c) The value of each successive enumerator is decreased by 1
- d) An enumerator has a white space in its name

View Answer

Answer: b

Explanation: None.

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int  
2. {  
3.     sunday = -3,  
4.     monday,  
5.     tuesday  
6. }
```


7. `Console.WriteLine((int)days.sunday);`

8. `Console.WriteLine((int)days.monday);`

9. `Console.WriteLine((int)days.tuesday);`

11. Which among the following differentiates enum in C#.NET from enum in C language?

a) C is strictly a typed language, C#.NET also is a strictly typed language

b) In C, language variables of enum types can be used interchangeably with integers using type casts while enum variables cannot be used as a normal integers in C#.NET

c) None of the mentioned

d) All of the mentioned

View Answer

Answer: b

Explanation: None.

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C# Questions & Answers – Inheritance Implementation

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

- a) 1
- b) 3
- c) 2
- d) Compile Time error

View Answer

Answer: c

Explanation: class sample & class sample1 both contain display() method, class sample1 inherits class sample, when display() method is called by object of class sample 1, display() method of class sample 1 is executed rather than that of Class sample.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
```

```

2.  {
3.      int i = 10;
4.      int j = 20;
5.      public void display()
6.      {
7.          Console.WriteLine("base method ");
8.      }
9.  }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }

```

- a) Index should be declared as protected if it is to become available in inheritance chain
- b) Constructor of sample class does not get inherited in sample 1 class
- c) During constructing an object referred to by z, Firstly constructor of sample class will be called followed by constructor of sample 1 class
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```

1.  class sample
2.  {
3.      int i = 10;
4.      int j = 20;
5.      public void display()
6.      {

```

```

7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }

```

- a) 10, 20, 30
base method
b) 10, 20, 0
c) compile time error
d) base method
View Answer

Answer: c

Explanation: 'i' and 'j' are inaccessible due to protection level. Declare them as public variable and hence will be accessed in code.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```

1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample

```

```

11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }

```

- a) 20 bytes
 - b) 12 bytes
 - c) 16 bytes
 - d) 24 bytes
- View Answer

Answer: d

Explanation: Explained in fundamentals of inheritance.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```

1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {

```

```

16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i,  obj.j,  obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }

```

- a) Code executes successfully prints nothing
- b) This is base class constructor
- c) Compile time error
- d) None of the mentioned

View Answer

Answer: c

Explanation: Base class accessibility level is much less compared to derived class. Declare it public to get desired output.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```

1.  class sample
2.  {
3.      int i = 10;
4.      int j = 20;
5.      public void display()
6.      {
7.          Console.WriteLine("base method ");
8.      }
9.  }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i,  obj.j,  obj.s);
20.         obj.display();

```

```
21.         Console.ReadLine();  
22.     }  
23. }
```

- a) Console.WriteLine(a + "" + this.a);
- b) Console.WriteLine(mybase.a + "" + a);
- c) console.WriteLine(a + "" + base.a);
- d) console.WriteLine(base.a + "" + a);

View Answer

Answer: c

Explanation: None.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1.  class sample  
2.  {  
3.      int i = 10;  
4.      int j = 20;  
5.      public void display()  
6.      {  
7.          Console.WriteLine("base method ");  
8.      }  
9.  }  
10. class sample1 : sample  
11. {  
12.     public int s = 30;  
13. }  
14. class Program  
15. {  
16.     static void Main(string[] args)  
17.     {  
18.         sample1 obj = new sample1();  
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);  
20.         obj.display();  
21.         Console.ReadLine();  
22.     }  
23. }
```

- a) Compile time error
- b) Output : b
- a

c) Output : a

b

d) The program will work correctly if we replace `base(a1)` with `base.baseclass(a1)`

View Answer

Answer: c

Explanation: None.

Output :

a
b

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

a) `x.a()`;

b) `a()`;

c) `base.a()`;

d) `x::a()`;

View Answer

Answer: c

Explanation: None.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```

1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

9. Which statements are correct?

- a) If a base class consists of a member function fun() and a derived class do not have any function with this name. An object of derived class can access fun()
- b) A class D can be derived from class C, which is derived from class B which in turn is derived from class A
- c) If a base class and a derived class each include a member function with same name, the member function of the derived class will be called by object of derived class
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```

1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }

```

- a) 2 1
- b) 1 0
- c) 0 2
- d) 1 2

View Answer

Answer: d

Explanation: Both class A & B have members with same name that is j, member of class B will be called by default if no specifier is used. i contains 1 & j contains 2, printing 1 2.

Output:

1, 2

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```

1. class sample
2. {
3.     int i = 10;

```

```

4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }

```

- a) 1, 3
 - b) 2, 3
 - c) 1, 2
 - d) compile time error
- View Answer

Answer: d

Explanation: Class contains a private member variable j, this cannot be inherited by subclass B and does not have access to it.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```

1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }

```

```

9.  }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }

```

12. Which of these keywords is used to refer to member of base class from a sub class?

- a) upper
- b) base
- c) this
- d) None of the mentioned

View Answer

Answer: b

Explanation: Whenever a subclass needs to refer to its immediate super class, it can do so by use of the keyword base.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```

1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;

```

```

13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }

```

13. Which of these operators must be used to inherit a class?

- a) :
- b) &
- c) ::
- d) extends

View Answer

Answer: a

Explanation: class a

```

{
}
class b : a
{
}

```

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```

1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;

```

```
13. }  
14. class Program  
15. {  
16.     static void Main(string[] args)  
17.     {  
18.         sample1 obj = new sample1();  
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);  
20.         obj.display();  
21.         Console.ReadLine();  
22.     }  
23. }
```

- a) I am a base class
I am a child class
b) I am a child class
I am a base class
c) compile time error
d) None of the mentioned
View Answer

Answer: a

Explanation: This is because base classes are automatically instantiated before derived classes. Notice the output, The BaseClass constructor is executed before the ChildClass constructor.

Output: I am a base class
I am a child class

C# Questions & Answers – Method Overloading

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
7.         Console.WriteLine( vol( 5l, 4, 5));
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r, int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
19.    {
20.        return(l * b * h);
21.    }
22. }
```

1. The process of defining two or more methods within the same class that have same name but different parameters list?

- a) Method overloading
- b) Method overriding
- c) Encapsulation
- d) None of the mentioned

View Answer

Answer: a

Explanation: Two or more methods can have same name as long as their parameters declaration and definitions are different, the methods are said to be overloaded and the process is called method overloading. Method overloading is used when methods are required to perform similar tasks using different input parameters.

3. What could be the output of the following set of code?

```
1. class Program
```

```
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
7.         Console.WriteLine( vol( 5l, 4, 5));
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r, int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
19.    {
20.        return(l * b * h);
21.    }
22. }
```

2. Which of these can be overloaded?

- a) Constructors
- b) Methods
- c) Both Constructors & Methods
- d) None of the mentioned

View Answer

Answer: c

Explanation: None.

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
```



```

7.      Console.WriteLine( vol( 5l,  4,  5));
8.      Console.ReadLine();
9.      }
10.     static int vol(int x)
11.     {
12.         return(x * x * x);
13.     }
14.     static float vol(float r,  int h)
15.     {
16.         return(3.14f * r * r * h);
17.     }
18.     static long vol(long l, int b, int h)
19.     {
20.         return(l * b * h);
21.     }
22. }

```

a) 1000

0

100

b) 0

0

100

c) compile time error

d) 1000

98.125

100

View Answer

Answer: d

Explanation: The concept of method overloading is implemented in method “vol” with same name but different definitions and parameter list which is overloaded three times and each time the return type is different for each method and hence matches the method using types of parameters .

Output:

```

1000
98.125
100

```

3. What could be the output of the following set of code?

```

1.  class Program
2.  {
3.      static void Main(string[] args)
4.      {
5.          Console.WriteLine( vol(10));

```

```

6.      Console.WriteLine( vol(2.5f,  5));
7.      Console.WriteLine( vol( 5l,  4,  5));
8.      Console.ReadLine();
9.      }
10.     static int vol(int x)
11.     {
12.         return(x * x * x);
13.     }
14.     static float vol(float r,  int h)
15.     {
16.         return(3.14f * r * r * h);
17.     }
18.     static long vol(long l, int b, int h)
19.     {
20.         return(l * b * h);
21.     }
22. }

```

- a) 8
8
b) 0
2
c) 8
10
d) 7
8

View Answer

Answer: d

Explanation: None.

Output:

7, 8

3. What could be the output of the following set of code?

```

1.  class Program
2.  {
3.      static void Main(string[] args)
4.      {
5.          Console.WriteLine( vol(10));
6.          Console.WriteLine( vol(2.5f,  5));
7.          Console.WriteLine( vol( 5l,  4,  5));

```

```
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r, int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
19.    {
20.        return(l * b * h);
21.    }
22. }
```

a) Compile time error

b) 25

0

c) 216

0

d) 216

25

View Answer

Answer: d

Explanation: None.

Output:

```
216
25
```

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
7.         Console.WriteLine( vol( 5l, 4, 5));
8.         Console.ReadLine();
9.     }
```

```

10.     static int vol(int x)
11.     {
12.         return(x * x * x);
13.     }
14.     static float vol(float r, int h)
15.     {
16.         return(3.14f * r * r * h);
17.     }
18.     static long vol(long l, int b, int h)
19.     {
20.         return(l * b * h);
21.     }
22. }

```

a) 4, 3.5

b) 8, 0

c) 7.5, 8

d) 8, 7

View Answer

Answer: d

Explanation: None

Output:

advertisement

8, 7

3. What could be the output of the following set of code?

```

1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
7.         Console.WriteLine( vol( 5l, 4, 5));
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);

```

```

13.     }
14.     static float vol(float r, int h)
15.     {
16.         return(3.14f * r * r * h);
17.     }
18.     static long vol(long l, int b, int h)
19.     {
20.         return(l * b * h);
21.     }
22. }

```

a) method 1:

method 2:

20

method 1:

b) method 2:

20

method 1:

method 1:

c) method 1:

0

method 2:

method 2:

d) method 1:

20

method 1:

method 2:

View Answer

Answer: d

Explanation: None.

Output :

```

method 1:
20
method 1:
method 2:

```

3. What could be the output of the following set of code?

```

1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
7.         Console.WriteLine( vol( 5l, 4, 5));
8.         Console.ReadLine();

```

```
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r, int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
19.    {
20.        return(l * b * h);
21.    }
22. }
```

8. What is the process of defining a method in terms of itself, that is a method that calls itself?

- a) Polymorphism
- b) Abstraction
- c) Encapsulation
- d) Recursion

View Answer

Answer: d

Explanation: None.

3. What could be the output of the following set of code?

```
1.  class Program
2.  {
3.      static void Main(string[] args)
4.      {
5.          Console.WriteLine( vol(10));
6.          Console.WriteLine( vol(2.5f, 5));
7.          Console.WriteLine( vol( 5l, 4, 5));
8.          Console.ReadLine();
9.      }
10.     static int vol(int x)
11.     {
12.         return(x * x * x);
13.     }
```

```
14.     static float vol(float r,  int h)
15.     {
16.         return(3.14f * r * r * h);
17.     }
18.     static long vol(long l, int b, int h)
19.     {
20.         return(l * b * h);
21.     }
22. }
```

- a) 30
2.5f
b) 2.5f
30
c) 20
2.5f
d) 20
3.4f

[View Answer](#)

Answer: d

Explanation: None.

Output:

20
3.4f

3. What could be the output of the following set of code?

```
1.  class Program
2.  {
3.      static void Main(string[] args)
4.      {
5.          Console.WriteLine( vol(10));
6.          Console.WriteLine( vol(2.5f,  5));
7.          Console.WriteLine( vol( 5l,  4,  5));
8.          Console.ReadLine();
9.      }
10.     static int vol(int x)
11.     {
12.         return(x * x * x);
13.     }
14.     static float vol(float r,  int h)
```

```

15.     {
16.         return(3.14f * r * r * h);
17.     }
18.     static long vol(long l, int b, int h)
19.     {
20.         return(l * b * h);
21.     }
22. }

```

- a) 190, 26.78f
- b) 0, 26.78f
- c) 190, 26
- d) 190, 0

View Answer

Answer: c

Explanation: None.

Output:

```

190
26

```

3. What could be the output of the following set of code?

```

1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
7.         Console.WriteLine( vol( 51, 4, 5));
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r, int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)

```



```
19.    {
20.        return(l * b * h);
21.    }
22. }
```

- a) 0, 0, 0
12, 14.78
b) 0, 0, 0
0, 0
c) 90, 100, 12
12, 14
d) 90, 100, 12
12, 14.78

View Answer

Answer: d

Explanation: None.

Output:

```
90, 100, 12
12, 14.78
```

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
7.         Console.WriteLine( vol( 5l, 4, 5));
8.         Console.ReadLine();
9.     }
10. static int vol(int x)
11. {
12.     return(x * x * x);
13. }
14. static float vol(float r, int h)
15. {
16.     return(3.14f * r * r * h);
17. }
18. static long vol(long l, int b, int h)
19. {
```

20. return(l * b * h);

21. }

22. }

a) 1 1 1

b) 0 0 0

c) 25 100000 12.34

d) -25 -100000 -12.34

View Answer

Answer: c

Explanation: None.

Output:

25 100000 12.34

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C# Questions & Answers – Method Overriding

1. Which keyword is used to declare a base class method while performing overriding of base class methods?

- a) this
- b) virtual
- c) override
- d) extend

View Answer

Answer: b

Explanation: None.

2. The process of defining a method in a subclass having same name & type signature as a method in its superclass is known as?

- a) Method overloading
- b) Method overriding
- c) Method hiding
- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

3. Which of the given modifiers can be used to prevent Method overriding?

- a) Static
- b) Constant
- c) Sealed
- d) final

View Answer

Answer: c

Explanation: When an instance method declaration includes the sealed modifier, the method is said to be sealed method. It means a derived class cannot override this method.

4. Select the correct statement from the following?

- a) Static methods can be a virtual method
- b) Abstract methods can be a virtual method
- c) When overriding a method, the names and type signatures of the override method must be the same as the virtual method that is being overridden
- d) We can override virtual as well as nonvirtual methods

View Answer

Answer: c

Explanation: None.

5. Which of the following cannot be used to declare a class as a virtual?

- a) Methods
- b) Properties
- c) Events
- d) Fields

View Answer

Answer: d

Explanation: None.

a) 0

- b) 2
 - c) 1
 - d) Compile time error
- View Answer

Answer: b

Explanation: When method display() is called using objects of class 'B'. The method 'display()' for class 'B' is called instead of class 'A' as class 'B' is inherited by class 'A'.

Output :

2

-
- a) A, A
 - b) B, B
 - c) Compile time error
 - d) A, B
- View Answer

Answer: d

Explanation: The method overriding procedure has been used to produce the values from two display().

Output:

advertisement

A B

8. The modifier used to hide the base class methods is?

- a) Virtual
 - b) New
 - c) Override
 - d) Sealed
- View Answer

Answer: b

Explanation: Used in condition when we cannot use virtually to override a base class method. Hence, we use 'New' to hide the base class methods and redefine the method defined in the subclass.

9. To override a method in the subclass, the base class method should be defined as?

- a) Virtual
- b) Abstract
- c) Override
- d) All of the mentioned.

View Answer

Answer: d

Explanation: None.

-
- a) Base method
 - b) Derived method
 - c) Code runs successfully prints nothing
 - d) Compile time error

View Answer

Answer: b

Explanation: Use of 'new' modifier hides the inherited member i.e it makes only inherited member inaccessible in derived class and hence calls suitable method().

Output :

derived method

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C# Questions & Answers – Constructor Overloading

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

- a) 60, 24
 - b) 60, 0
 - c) 60, 144
 - d) 60, 144.0
- View Answer

Answer: c

Explanation: Matching the values passed as parameters. The respective constructors are overloaded according to the matching parameter type.

Output :

```
60
144
```

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

- a) 8, 8
- b) 0, 2
- c) 8, 10
- d) 7, 8

View Answer

Answer: d

Explanation: None.

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
```

```
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

- a) constructor 1:
constructor 2: 6
b) constructor 2: 6
constructor 2: 6
c) constructor 2: 6
constructor 1:
d) none of the mentioned

View Answer

Answer: c

Explanation: None.

Output:

```
constructor 2: 6
constructor 1:
```

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
```



```
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

- a) hello bye
b) 12 hello
c) bye 12
d) Compile time error

View Answer

Answer: a

Explanation: None.

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
```

```
12.         Console.WriteLine("constructor 2: " +u);
13.     }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

- a) 4, 26, 144
- b) 26, 4, 144
- c) 144, 26, 4
- d) 0, 0, 0

View Answer

Answer: c

Explanation: None.

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
```

```
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

6. Which keyword is used to refer baseclass constructor to subclass constructor?

- a) This
- b) Static
- c) Base
- d) Extend

View Answer

Answer: c

Explanation: None.

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
```

```
21.         Console.ReadLine();  
22.     }  
23. }
```

7. When we call a constructor method among different given constructors. We match the suitable constructor by matching the name of constructor first, then the number and then the type of parameters to decide which constructor is to be overloaded. The process is also known as?

- a) Method overriding
 - b) Inheritance
 - c) Polymorphism
 - d) Encapsulation
- View Answer

Answer: c

Explanation: None.

3. What will be the output of the given set of code?

```
1.  class maths  
2.  {  
3.      public maths()  
4.      {  
5.          Console.WriteLine("constructor 1 :");  
6.      }  
7.      public maths(int x)  
8.      {  
9.          int p = 2;  
10.         int u;  
11.         u = p + x;  
12.         Console.WriteLine("constructor 2: " +u);  
13.     }  
14. }  
15. class Program  
16. {  
17.     static void Main(string[] args)  
18.     {  
19.         maths k = new maths(4);  
20.         maths t = new maths();  
21.         Console.ReadLine();  
22.     }  
23. }
```

8. Correct statement about constructor overloading in C# is?

- a) Overloaded constructors have the same name as the class
- b) Overloaded constructors cannot use optional arguments
- c) Overloaded constructors can have different type of number of arguments as well as differ in number of arguments
- d) All of the mentioned

View Answer

Answer: c

Explanation: By definition of overloaded constructors.

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

- a) 10, 10
- b) 0, 10
- c) 8, 10
- d) 8, 8

View Answer

Answer: c

Explanation: None.

Output:

8, 10

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

- a) -25
- 1000
- b) -1000
- 25
- c) 25
- 1000
- d) None of the mentioned

View Answer

Answer: c

Explanation: None.

Output :

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C# Questions & Answers – Abstract Class & Methods

1. A type of class which does not have its own objects but acts as a base class for its subclass is known as?

- a) Static class
- b) Sealed class
- c) Abstract class
- d) None of the mentioned

View Answer

Answer: c

Explanation: None.

2. The modifier used to define a class which does not have objects of its own but acts as a base class for its subclass is?

- a) Sealed
- b) Static
- c) New
- d) Abstract

View Answer

Answer: d

Explanation: abstract class Base

```
{  
  
}  
class derived : Base  
{  
}  
Base b1; /*object of Base class which can never be possible */  
Derived d1; /*object of derived class which is possible */
```

3. Choose the correct statements among the following:

- a) An abstract method does not have implementation
- b) An abstract method can take either static or virtual modifiers
- c) An abstract method can be declared only in abstract class
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

- a) 0
- b) 2
- c) Compile time error
- d) 1

View Answer

Answer: b

Explanation: Here in abstract class 'A' abstract method display() is declared and its full implementation i.e definition is given in subclass of class 'A'.

Output :2

- a) 1, 5
- b) 0, 5
- c) 1, 0
- d) 1, 3

View Answer

Answer: d

Explanation: obj.i = 1 initializes value of i as 1 as it is the abstract member of abstract class 'A'. Now, 'j' is also a same member as class 'A'. Since it is initialized the value of 5 when declared in subclass. But since abstract method is redefined in subclass using 'this' keyword as this.j = 3, method will execute only abstract class member 'j' not subclass 'B' own defined data member 'j'.

Output :

1, 3

a) 2, 10

12

b) 0, 10

10

c) 2, 0

2

d) 0, 0

0

View Answer

Answer: c

Explanation: Abstract method implementation is processed in subclass 'B'. Also the object 'obj' of abstract class 'A' initializes value of i as 2. The object of class 'B' also initializes value of j as 10. Since, the method display() is called using object of class A which is 'obj' and hence i = 2 whereas j = 0. So, sum = 2.

Output :

2 0
sum is : 2

7. If a class inheriting an abstract class does not define all of its functions then it is known as?

a) Abstract

b) A simple class

c) Static class

d) None of the mentioned

View Answer

Answer: a

Explanation: Any subclass of an abstract class must either implement all of the abstract method in the super class or itself be declared abstract.

8. Which of the following modifiers is used when an abstract method is redefined by a derived class?

a) Overloads

b) Override

c) Base

d) Virtual

View Answer

Answer: b

Explanation: None.

a) 0, 8

b) 1, 8

c) 1, 7

d) 7, 1

View Answer

Answer: d

Explanation: Data member 'i' of abstract class A will be preferred over variable initialized and executed by obj1 as obj1.i = 8 as 'obj' of class B

executes display() method.

Output :

7, 1.

a) 8, 1

b) 8

c) 1

d) 1, 8

View Answer

Answer: c

Explanation: Class A & class B both contain display() method, class B inherits class A, when display() method is called by object of class B, display() method of class B is executed rather than that of Class A.

Output:

1.

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C# Questions & Answers – Interfaces Introduction

1. Which statement correctly defines Interfaces in C#.NET?

- a) Interfaces cannot be inherited
- b) Interfaces consists of data static in nature and static methods
- c) Interfaces consists of only method declaration
- d) None of the mentioned

View Answer

Answer: d

Explanation: Leaving all options only option 'a' is correct as interfaces can be inherited i.e inheritance can be performed in csharp .net.

2. Which of the following cannot be used to declare an interface correctly?

- a) Properties
- b) Methods
- c) Structures
- d) Events

View Answer

Answer: c

Explanation: None.

3. A class consists of two interfaces with each interface consisting of three methods. The class had no instance data. Which of the following indicates the correct size of object created from this class?

- a) 12 bytes
- b) 16 bytes
- c) 0 bytes
- d) 24 bytes

View Answer

Answer: d

Explanation: None.

4. Which of the following statements correctly define about the implementation of interface?

- a) The calls to implementation of interface methods are routed through a method table
- b) A class which implements an interface can explicitly implement members of that interface
- c) One interface can be implemented in another interface
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

5. Select the correct statement among the given statements?

- a) One class could implement only one interface
- b) Properties could be declared inside an interface
- c) Interfaces cannot be inherited
- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

6. Which keyword is used for correct implementation of an interface in C#.NET?

- a) interface

b) Interface
c) intf
d) Intf
View Answer

Answer: a
Explanation: None.

7. Choose the statements which makes interface different from classes?
a) Unlike classes, interfaces consists of only declaration but not implementation
b) Interfaces cannot be used directly like classes to create new objects
c) Interfaces consists of declaration of methods,properties events and type definitions
d) All of the mentioned
View Answer

Answer: d
Explanation: None.

8. Which of the following is the correct way of implementing an interface addition by class maths?
a) class maths : addition {}
b) class maths implements addition {}
c) class maths imports addition {}
d) none of the mentioned
View Answer

Answer: a
Explanation: None.

9. Does C#.NET support partial implementation of interfaces?
a) True
b) False
c) Can't Say
d) None of the mentioned
View Answer

Answer: b
Explanation: Interface is a behaviour. It represents a protocol or a contract of sorts.Hence, it is impossible to implement an interface partially.

d) None of the mentioned
View Answer

Answer: c
Explanation: None.

11. Which of these can be used to fully abstract a class from its implementation?
a) Objects
b) Packages
c) Interfaces
d) None of the Mentioned
View Answer

Answer: c
Explanation: None.

12. Access specifiers which can be used for an interface are?
a) Public

- b) Protected
 - c) Private
 - d) All of the mentioned
- View Answer

Answer: a

Explanation: Access specifier of an interface is either public or none. When no access specifier is specified then only default access specifier is used due to which interface is available only to other members of the package in which it is declared, when declared public it can be used by any code declared anywhere in the class area.

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C# Questions & Answers – Interfaces Implementation

3. Choose the correct statement about following code snippet given below:

```
1. interface a1
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
10. {
11. }
12. }
```

- a) class a is an abstract class
- b) A method table would not be created for class a
- c) The definition of f1() in class a should be void a1.f1()
- d) None of the mentioned

View Answer

Answer: c

Explanation: None.

3. Choose the correct statement about following code snippet given below:

```
1. interface a1
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
10. {
11. }
12. }
```

2. Choose the wrong statement about 'INTERFACE' in C#.NET?

- a) An explicitly implemented member could be accessed from an instance of the interface
- b) Interfaces are declared public automatically
- c) An interface could not contain signature of the indexer
- d) None of the mentioned

View Answer

Answer: c

Explanation: None.

3. Choose the correct statement about following code snippet given below:

```
1. interface a1
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
10. {
11. }
12. }
```

- a) Class a could not have an instance data
- b) Class a is an abstract class
- c) Class a fully implements the interface a1
- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

3. Choose the correct statement about following code snippet given below:

```
1. interface a1
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
```

```
10.    {  
11.    }  
12. }
```

- a) Functions should be declared inside an interface
- b) It is workable code
- c) Properties cannot be declared inside an interface
- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

3. Choose the correct statement about following code snippet given below:

```
1. interface a1  
2. {  
3.     void f1();  
4.     void f2();  
5. }  
6. class a :a1  
7. {  
8.     private int i;  
9.     void a1.f1()  
10.    {  
11.    }  
12. }
```

- a) 0
- b) 2
- c) 4
- d) None of the mentioned

View Answer

Answer: c

Explanation: None.

Output :

4

3. Choose the correct statement about following code snippet given below:

```
1. interface a1  
2. {  
3.     void f1();  
4.     void f2();  
5. }
```



```

6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
10.    {
11.    }
12. }

```

- a) 0 0
- b) 2 2
- c) 4 1
- d) 1 4

View Answer

Answer: c

Explanation: class displayA executes the interface calculate by doubling the value of item . Similarly class displayB implements the interface by dividing item by item. So, variable x of class displayA stores 4 and variable x of class displayB stores 1.

Output :

advertisement

4, 1

3. Choose the correct statement about following code snippet given below:

```

1. interface a1
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
10.    {
11.    }
12. }

```

- a) i1.fun
- b) i2.fun
- i1.fun
- c) 0
- d) i1.fun
- i2.fun

View Answer

Answer: d

Explanation: None.

3. Choose the correct statement about following code snippet given below:

```
1. interface a1
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
10. {
11. }
12. }
```

d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

3. Choose the correct statement about following code snippet given below:

```
1. interface a1
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
10. {
11. }
12. }
```

a) fun2

b) fun1

c) fun1

fun2

d) fun2

fun1

[View Answer](#)

Answer: c

Explanation: None.

3. Choose the correct statement about following code snippet given below:

```
1. interface a1
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
10. {
11. }
12. }
```

d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

C# Questions & Answers – Introduction of Overloaded Operators

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

1. Which of the following keyword is used to overload user defined types by defining static member functions?

- a) op
- b) opoverload
- c) operator
- d) operatoroverload

View Answer

Answer: c

Explanation: None.

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

2. Which of following statements are correct in nature?

- a) The conditional logical operators cannot be overloaded
- b) The array indexing operator can be overloaded
- c) A public or nested public preference type does not overload the equality operator
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

- a) '%<'<'<<'<'+'<'-'<'&'< '/'
- b) '<<'<'&'<'%'<'-'<'/'<'+'
- c) '&'<'-'<'%'<'<<'<'/'<'+'
- d) '/'<'-'<'%'<'+'<'<<'<'&'

View Answer

Answer: b

Explanation: None.

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

4. Operators that can be overloaded are?

- a) ||
- b) '+='
- c) +
- d) [].

View Answer

Answer: c

Explanation: None.

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

5. Which statements are correct about operator overloading?

- a) Mathematical or physical modeling where we use classes to represent objects such as vectors, matrices, complex-numbers etc
- b) Graphical programs where coordinate related objects are used to represent positions on the screen
- c) Financial programs where a class represents an amount of money
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

View Answer

Answer: c

Explanation: None.

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

7. Correct method to define + operator is?

- a) public sample operator +(int a, int b)
- b) public abstract operator +(int a, int b)
- c) public static sample operator +(int a, int b)
- d) public abstract sample operator +(int a, int b)

View Answer

Answer: c

Explanation: None.

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

8. Choose the correct statement among the below mentioned statements:

- a) Forgetting to declare an operator method as public
- b) Forgetting to declare an operator method as static
- c) Forgetting to return a bool type value while overloading a relational operator
- d) All of the mentioned

View Answer

Answer: d

Explanation: None

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

9. What is vector in operator overloading?

- a) class
- b) method()
- c) data type
- d) none of the mentioned

View Answer

Answer: c

Explanation: It is a data type of class . It is defined as : public static Vector operator + (Vector a, Vector b).

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

10. Choose the wrong statement from the given set of statements?

- a) All operators in C#.NET cannot be overloaded
- b) We can use the new modifier to modify a nested type if the nested type is hiding another type
- c) Operator overloading permits the use of symbols to represent computations for a type
- d) In case of operator overloading all parameters must be of different type than the class or struct that declares the operators

View Answer

Answer: d

Explanation: None.

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C# Questions & Answers – Recursion

1. What is Recursion in CSharp defined as?

- a) Recursion is another form of class
- b) Recursion is another process of defining a method that calls other methods repeatedly
- c) Recursion is a process of defining a method that calls itself repeatedly
- d) Recursion is a process of defining a method that calls other methods which in turn calls this method

View Answer

Answer: c

Explanation: Recursion is the process of defining something in terms of itself. It allows us to define method that calls itself repeatedly until it meets some base case condition.

2. Which of these will happen if recursive method does not have a base case?

- a) Infinite loop condition occurrence
- b) System gets hanged
- c) After 10000 executions program will be automatically stopped
- d) None of the mentioned

View Answer

Answer: a

Explanation: If a recursive method does not have a base case which is necessary to meet the end of condition then an infinite loop occurs which results in stackoverflow exception error.

3. Which of these is not a correct statement?

- a) A recursive method must have a base case
- b) Recursion always uses stack
- c) Recursion is always managed by C# Runtime environment
- d) Recursive methods are faster than programmer written loop to call the function repeatedly using a stack

View Answer

Answer: c

Explanation: No matter whatever is the programming language recursion is always managed by operating system.

- a) 24
- b) 30
- c) 120
- d) 144

View Answer

Answer: a

Explanation: None.

- a) 2
- b) 10
- c) 1
- d) 0

View Answer

Answer: c

Explanation: fact() calculates recursively the factorial of a number when n turns to be 1, base case is executed consecutively and hence 1 is returned.

Output: 1

- a) 64

- b) 60
- c) 120
- d) 48

View Answer

Answer: d

Explanation: $4! = 4 \times 3 \times 2 \times 1$ & $2! = 2 \times 1$. So, $24 \times 2 = 48$.

Output : 48

- a) 64
- b) 60
- c) 72
- d) 84

View Answer

Answer: c

Explanation: $4! = 4 \times 3 \times 2 \times 1 = 24 \times 3 = 72$. Not factorial of 3 but just multiply the number with 3.

Output : 72

8. Which of these data types is used by operating system to manage the Recursion in Csharp?

- a) Array
- b) Queue
- c) Tree
- d) Stack

View Answer

Answer: d

Explanation: None.

- a) 24
- b) 30
- c) Compile time error
- d) Runtime Error

View Answer

Answer: d

Explanation: Absence of base case condition. So absence of limit or end of for execution of a loop and hence results in stackoverflow exception error.

- a) 24
- b) 0
- c) 12
- d) 1

View Answer

Answer: c

Explanation: fact() calculates factorial of number '4' but this time base case condition is executed upto 2 only. As soon as n reaches 2 it returns 2.

C# Questions & Answers – Introduction of Indexers

1. Choose the correct statement among the followings?

- a) Indexers are location indicators
- b) Indexers are used to access class objects
- c) Indexer is a form of property and works in the same way as a property
- d) All of the mentioned

View Answer

Answer: d

Explanation: By definition.

2. Choose the keyword which declares the indexer?

- a) base
- b) this
- c) super
- d) extract

View Answer

Answer: b

Explanation: The indexer is declared using the name this.

3. Choose the operator/operators which is/are not used to access the [] operator in indexers?

- a) get
- b) set
- c) access
- d) all of the mentioned

View Answer

Answer: c

Explanation: The indexer is implemented through the get and set accessors for the [] operator as:

```
public double this[int idx]
{
    get
    {
        if()
        {
        }
        else
        {
            return([idx]);
        }
    }
    set
    {
        array[idx];
    }
}
```

4. Choose the correct statement among the following?

- a) A property can be a static member whereas an indexer is always an instance member
- b) A get accessor of a property corresponds to a method with no parameters whereas get accessor of an indexer corresponds to a method with the same formal parameters lists as the indexer
- c) It is an error for indexer to declare a local variable with the same name as indexer parameters
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

View Answer

Answer: b

Explanation: None.

6. Which among the following are the advantages of using indexers?

- a) To use collection of items at a large scale we make use of indexers as they utilize objects of class that represent the collection as an array
- b) Indexers are also convenient as they can also make use of different types of indexers like int, string etc
- c) An indexer allows an object to be indexed such as an array
- d) All of the mentioned

View Answer

Answer: d

Explanation: Indexers provides a view at large scale to visualize a collection of items as an array. It is really easy to use the object of the class that represents a collection as if it is an array. Hence, indexed properties allow us to represent such a view. Indexers can also use different types of indexes like int, string etc. Use int as an index where sequential access to a collection is desired. When symbolic access is needed, use string as an index.

7. Choose the correct statement about properties describing the indexers?

- a) No need to use the name of the property while using an indexed property
- b) An indexer property should accept at least one argument
- c) Indexers can be overloaded
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

8. Choose the correct alternative that utilizes the indexed property such that a group named class has indexed property which stores or retrieves value to/from an array of 5 numbers?

- a) `group[3] = 34;`
- b) `group g = group();`
- c) `Console.WriteLine(group[3]);`
- d) `group g = new group();`
`Console.WriteLine(g[3]);`

View Answer

Answer: d

Explanation: None.

9. Choose the correct option among the following indexers which correctly allows to index in same way as an array?

- a) A class
- b) An interface
- c) A function
- d) A property

View Answer

Answer: a

Explanation: None.

- a) Compile time error
- b) Run time error
- c) 123, abc, xyz
- d) 0

View Answer

Answer: b

Explanation: Index out of range which arises only when index is non negative or less than the collection of size.

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C# Questions & Answers – Introduction of Properties

1. Choose the wrong statement about the properties used in C#.NET?

- a) Each property consists of accessor as get and set
- b) A property cannot be either read or write only
- c) Properties can be used to store and retrieve values to and from the data members of a class
- d) Properties are like actual methods which work like data members

View Answer

Answer: a

Explanation: None.

2. Choose the statements which makes use of essential properties rather than making data member public in C#.NET?

- a) Properties have their own access levels like private, public, protected etc. which allows it to have better control about managing read and write properties
- b) Properties give us control about what values may be assigned to a member variables of a class they represent
- c) Properties consist of set accessor inside which we can validate the value before assigning it to the data variable
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

3. Where the properties can be declared?

- a) Class
- b) Struct
- c) Interface
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

4. Select the modifiers which can be used with the properties?

- a) Private
- b) Public
- c) Protected Internal
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

5. Choose the correct statements about write-only properties in C#.NET?

- a) Properties which can only be set
- b) Properties once set and hence values cannot be read back in nature
- c) Useful for usage in classes which store sensitive information like password of a user
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

6. Consider a class maths and we had a property called as sum.b is a reference to a maths object and we want the statement b.sum = 10 to fail.Which of the following is the correct solution to ensure this functionality?

- a) Declare sum property with both get and set accessors
- b) Declare sum property with only get accessor
- c) Declare sum property with get, set and normal accessors
- d) None of the mentioned

View Answer

Answer: c

Explanation: None.

7. Consider a class maths and we had a property called as sum.b which is the reference to a maths object and we want the statement Console.WriteLine(b.sum) to fail. Which among the following is the correct solution to ensure this functionality?

- a) Declares sum property with only get accessor
- b) Declares sum property with only set accessor
- c) Declares sum property with both set and get accessor
- d) Declares sum property with both set, get and normal accessor

View Answer

Answer: b

Explanation: None.

- a) Declare maths property with get and set accessors
- b) Declare maths property with only get accessors
- c) Declare maths property with only set accessors
- d) Declare maths property with only get, set and normal accessors

View Answer

Answer: a

Explanation: None.

- c) Console.WriteLine(math.add);
- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

10. If the math class had add property with get accessors then which of the following statements will work correctly?

- a) math m = new math();
m.add = 10;
- b) math m = new math();
m.add = m.add + 20;
- c) math m = new math();
int i;
i = m.add;
- d) math.add = 20;

View Answer

Answer: c

Explanation: None.

C# Questions & Answers – Properties and its Applications

d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

3. Select the correct statement about properties of read and write in C#.NET?

a) A property can simultaneously be read or write only

b) A property cannot be either read only or write only

c) A write only property will only have get accessor

d) A read only property will only have get accessor

[View Answer](#)

Answer: d

Explanation: None.

a) 0

b) Compile time error

c) 60

d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

Output :

advertisement

60

a) 0

b) 120

c) 1200

d) Compile time error

[View Answer](#)

Answer: c

Explanation: None.

Output :

1200

a) 0

b) 180

c) 30

d) Compile time error

[View Answer](#)

Answer: c

Explanation: None.

Output :

30

a) 30

b) 75

c) 80

d) 0

[View Answer](#)

Answer: b

Explanation: None.

Output :

75

a) 73

b) 37

c) 0

d) Run time error

[View Answer](#)

Answer: a

Explanation: None.

Output :

73

d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

a) 0

b) Compile time error

c) Run time error

d) scores had greater value : 13

scores had greater value : 32

scores1 had greater value : 40

[View Answer](#)

Answer: d

Explanation: None.

Output :

```
scores had greater value : 13
scores had greater value : 32
scores1 had greater value : 40
```

C# Questions & Answers – Fundamentals of Exception Handling

1. Which among the following is NOT an exception?

- a) Stack Overflow
- b) Arithmetic Overflow or underflow
- c) Incorrect Arithmetic Expression
- d) All of the mentioned

View Answer

Answer: c

Explanation: None.

2. Which among the following is considered as .NET Exception class?

- a) Exception
- b) StackUnderflow Exception
- c) File Found Exception
- d) All of the mentioned

View Answer

Answer: b, c

Explanation: None.

3. Which of the following is the object oriented way to handle run time errors?

- a) Error codes
- b) HRESULT
- c) OnError
- d) Exceptions

View Answer

Answer: d

Explanation: None.

4. Select the statements which describe the correct usage of exception handling over conventional error handling approaches?

- a) As errors can be ignored but exceptions cannot be ignored
- b) Exception handling allows separation of program's logic from error handling logic making software more reliable and maintainable
- c) try – catch – finally structure allows guaranteed cleanup in event of errors under all circumstances
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

5. Select the correct statement about an Exception?

- a) It occurs during loading of program
- b) It occurs during Just-In-Time compilation
- c) It occurs at run time
- d) All of the mentioned

View Answer

Answer: c

Explanation: None.

6. Which of these keywords is not a part of exception handling?

- a) try
- b) finally

- c) thrown
 - d) catch
- View Answer

Answer: c

Explanation: Exception handling is managed via 5 keywords – try, catch, throws, throw and finally.

7. Which of these keywords must be used to monitor exceptions?

- a) try
 - b) finally
 - c) throw
 - d) catch
- View Answer

Answer: a

Explanation: None.

8. Which of these keywords is used to manually throw an exception?

- a) try
 - b) finally
 - c) throw
 - d) catch
- View Answer

Answer: c

Explanation: None.

- a) value 40 will be assigned to a[5];
 - b) The output will be :
Index out of bounds
Remaining program
 - c) The output will be :
Remaining program
 - d) None of the mentioned
- View Answer

Answer: b

Explanation: None.

- a) csharp
 - b) java
 - c) run time error
 - d) csharp 0
- View Answer

Answer: b

Explanation: 1 / 0, hence system out of flow exception error.

11. Which of the following is the wrong statement about exception handling in C#.NET?

- a) finally clause is used to perform cleanup operations of closing network and database connections
 - b) a program can contain multiple finally clauses
 - c) the statement in final clause will get executed no matter whether an exception occurs or not
 - d) all of the mentioned
- View Answer

Answer: b

Explanation: None.

- a) csharp 0
- b) Run time Exception generation
- c) Compile time error
- d) Java

View Answer

Answer: b

Explanation: Run time Error of division by zero.

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C# Questions & Answers – Implementation of Exception Handling

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
6.             Console.WriteLine(a[i]);
7.     }
8.     catch (IndexOutOfRangeException e)
9.     {
10.        Console.WriteLine("0");
11.    }
12.    Console.ReadLine();
13. }
```

- a) 0
- b) 0 5
- c) 0 -10
- d) Compile time error

View Answer

Answer: c

Explanation: Value of variable sum is printed as sum and is defined outside try & catch block. If defined inside the try block then sum would be undefined for execution.

Output : 0 -10

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
6.             Console.WriteLine(a[i]);
7.     }
8.     catch (IndexOutOfRangeException e)
9.     {
10.        Console.WriteLine("0");
11.    }
```

```
12. Console.ReadLine();
```

```
13. }
```

- a) 1234
- b) 12345
- c) Run time error
- d) 12345B

View Answer

Answer: d

Explanation: Due to occurrence of arithmetic exception here 'B' is printed after 12345.

Output : 12345B

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
6.             Console.WriteLine(a[i]);
7.     }
8.     catch(IndexOutOfRangeException e)
9.     {
10.        Console.WriteLine("0");
11.    }
12.    Console.ReadLine();
13. }
```

- a) 12345
- b) 123450
- c) 1234500
- d) Compile time error

View Answer

Answer: b

Explanation: When array index goes out of bound then IndexOutOfRangeException exception is thrown by the system.

Output : 123450

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
```

```
6.         Console.WriteLine(a[i]);
7.     }
8.     catch (IndexOutOfRangeException e)
9.     {
10.         Console.WriteLine("0");
11.     }
12.     Console.ReadLine();
13. }
```

- a) A
- b) B
- c) Compile time error
- d) Run time error

View Answer

Answer: b

Explanation: Since b = 0 since a = 10 / 0 so, arithmetic exception is caught and hence statement in catch block is executed.

Output : B

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
6.             Console.WriteLine(a[i]);
7.     }
8.     catch (IndexOutOfRangeException e)
9.     {
10.         Console.WriteLine("0");
11.     }
12.     Console.ReadLine();
13. }
```

- a) -1
- b) 0
- c) -1 0
- d) -1 0 -1

View Answer

Answer: c

Explanation: None.

Output : -1 0

3. What will be the output of given code snippet?

```
1. {  
2.     try  
3.     {  
4.         int []a = {1, 2, 3, 4, 5};  
5.         for (int i = 0; i < 7; ++i)  
6.             Console.WriteLine(a[i]);  
7.     }  
8.     catch(IndexOutOfRangeException e)  
9.     {  
10.        Console.WriteLine("0");  
11.    }  
12.    Console.ReadLine();  
13. }
```

- a) A
- b) B
- c) B C
- d) Run time error

View Answer

Answer: c

Explanation: finally keyword is used to execute before catch and try block is executed.

Output : B C

3. What will be the output of given code snippet?

```
1. {  
2.     try  
3.     {  
4.         int []a = {1, 2, 3, 4, 5};  
5.         for (int i = 0; i < 7; ++i)  
6.             Console.WriteLine(a[i]);  
7.     }  
8.     catch(IndexOutOfRangeException e)  
9.     {  
10.        Console.WriteLine("0");  
11.    }  
12.    Console.ReadLine();  
13. }
```

- a) Exception occurred
- b) Program executed
- c) Exception occurred
- Program executed
- d) Program executed
- Exception occurred
- View Answer

Answer: c

Explanation: None.

Output: Exception occurred

Program executed

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
6.             Console.WriteLine(a[i]);
7.     }
8.     catch (IndexOutOfRangeException e)
9.     {
10.        Console.WriteLine("0");
11.    }
12.    Console.ReadLine();
13. }
```

8. When is no exception thrown at runtime then who will catch it?

- a) CLR
- b) Operating System
- c) Loader
- d) Compiler
- View Answer

Answer: a

Explanation: None.

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
```

```

6.         Console.WriteLine(a[i]);
7.     }
8.     catch (IndexOutOfRangeException e)
9.     {
10.         Console.WriteLine("0");
11.     }
12.     Console.ReadLine();
13. }

```

- a) Compile time error
- b) Run time error
- c) B 0
- d) B

View Answer

Answer: c

Explanation: The catch block is called, as the exception is caught by the same block and hence statements are executed consecutively.

Output : B 0

3. What will be the output of given code snippet?

```

1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
6.             Console.WriteLine(a[i]);
7.     }
8.     catch (IndexOutOfRangeException e)
9.     {
10.         Console.WriteLine("0");
11.     }
12.     Console.ReadLine();
13. }

```

10. Choose the correct statement which makes exception handling work in C#.NET?

- a) .Net runtime makes search for the exception handler where exception occurs
- b) If no exception is matched, exception handler goes up the stack and hence finds the match there
- c) If no match is found at the highest level of stack call, then unhandledException is generated and hence termination of program occurs
- d) All of the mentioned

View Answer

Answer: d

Explanation: By definition of exception handling mechanism in C#.NET.

C#Questions & Answers – Exceptions of Type Finally and Built in Exceptions

1. Which of these clauses will be executed even if no exceptions are found?

- a) throws
 - b) finally
 - c) throw
 - d) catch
- View Answer

Answer: b

Explanation: finally keyword is used to define a set of instructions that will be executed irrespective of whether the exception is found or not.

2. A single try block must be followed by which of these?

- a) finally
 - b) catch
 - c) Both finally & catch
 - d) None of the mentioned
- View Answer

Answer: c

Explanation: Try block can be followed by any of finally or catch block, try block checks for exceptions and work is performed by finally and catch block as per the exception.

3. Which of these exceptions handles the divide by zero error?

- a) ArithmeticException
 - b) MathException
 - c) IllegalAccessException
 - d) IllegalException
- View Answer

Answer: a

Explanation: None.

4. Which of these exceptions will occur if we try to access the index of an array beyond its length?

- a) ArithmeticException
 - b) ArrayException
 - c) ArrayArgumentException
 - d) IndexOutOfRangeException
- View Answer

Answer: d

Explanation: IndexOutOfRangeException is a built in exception that is caused when we try to access an index location which is beyond the length of an array.

- a) 0
 - b) 1
 - c) Compile time error
 - d) Runtime error
- View Answer

Answer: b

Explanation: None.

- a) A
- b) B

- c) Compile time error
- d) Runtime error

View Answer

Answer: d

Explanation: Try block is throwing NullPointerException but the catch block is used to counter Arithmetic Exception. Hence NullPointerException occurs since no catch is there which can handle it, runtime error occurs.

- a) A
- b) B
- c) AB
- d) BA

View Answer

Answer: a

Explanation: The inner try block does not have a catch which can tackle IndexOutOfRangeException hence finally is executed which prints 'A'. The outer try block does have catch for IndexOutOfBoundsException exception but no such exception occurs in it hence its catch is never executed and only 'A' is printed.

- a) TypeA
- b) TypeB
- c) 0TypeA
- d) Compile time error

View Answer

Answer: b

Explanation: None.

9. Which of the following keywords is used by the calling function to guard against the exception that is thrown by called function?

- a) try
- b) throw
- c) throws
- d) catch

View Answer

Answer: c

Explanation: If a method is capable of causing an exception that it does not handle. It must specify this behaviour so that callers of the method can guard themselves against that exception. This is done by using throws clause in methods declaration.

10. Which of these classes is related to all the exceptions that are explicitly thrown?

- a) Error
- b) Exception
- c) Throwable
- d) Throw

View Answer

Answer: c

Explanation: None.

C#Questions & Answers – Try & Catch in Detail

1. What is the use of try & catch?

- a) It is used to manually handle the exception
- b) It helps to fix the errors
- c) It prevents automatic terminating of the program in cases when an exception occurs
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

- a) Hello
- b) C
- c) Hellossharp
- d) Csharp

View Answer

Answer: d

Explanation: finally block execution takes place after the tryblock, no matter exception is found or not. catch block is executed only when exception is found. Here divide by zero exception is found hence both catch and finally are executed.

3. Choose the statement which is incorrect?

- a) try block does not need to be followed by catch block
- b) try block can be followed by finally block instead of catch block
- c) try can be followed by both catch and finally block
- d) try need not to be followed by anything

View Answer

Answer: d

Explanation: try followed by either catch or finally block.

- a) Hi
- b) hello
- c) Hihello
- d) Compile time error

View Answer

Answer: b

Explanation: None.

5. Which of the keywords are used for the block to be examined for exceptions?

- a) try
- b) catch
- c) throw
- d) check

View Answer

Answer: a

Explanation: try is used for the block that needs to be checked for exception.

6. Which of these keywords are used for the block to handle the exceptions generated by try block?

- a) try
- b) catch
- c) throw

d) check

View Answer

Answer :b

Explanation: None.

a) Csharp

b) sharp

c) C

d) Compile time error

View Answer

Answer: d

Explanation: try should be followed by either catch or finally.

a) C

b) sharp

c) Csharp

d) None of the mentioned

View Answer

Answer: c

Explanation: finally block is always executed after try block, no matter if the exception is found or not.

a) Hi

b) hello

c) Hihello

d) Compile time error

View Answer

Answer: a

Explanation: None.

10. Which of these keywords are used for generating an exception manually?

a) try

b) catch

c) throw

d) check

View Answer

Answer: c

Explanation: None.

C# Questions & Answers – Attributes

1. Which of the following cannot further inspect the attribute that is once applied?

- a) Linker
- b) ASP.NET Runtime
- c) Language compilers
- d) CLR

View Answer

Answer: a

Explanation: None.

2. To apply an attribute to an Assembly, the correct way of implementation is?

- a) [AssemblyInfo: AssemblyDescription("Csharp")].
- b) [assembly: AssemblyDescription("Csharp")].
- c) [AssemblyDescription("Csharp")].
- d) (Assembly:AssemblyDescription("Csharp")).

View Answer

Answer: b

Explanation: None.

3. The correct method to pass parameter to an attribute is?

- a) By name
- b) By address
- c) By value
- d) By reference

View Answer

Answer: a

Explanation: None.

View Answer

Answer: c

Explanation: By definition.

5. Which among the following cannot be a target for a custom attribute?

- a) Enum
- b) Event
- c) Interface
- d) Namespace

View Answer

Answer: d

Explanation: None.

6. Select the correct statement about Attributes used in C#.NET?

- a) The CLR can change the behaviour of the code depending on attributes applied to it
- b) If a bugFixAttribute is to receive three parameters, then the BugFixAttribute class should implement a zero argument constructor
- c) To create a custom attribute we need to create a custom attribute structure and derive it from System.Attribute
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

7. The correct way to apply the custom attribute called Employer which receives two arguments – name of the employee and employeeid is?

- a) Custom attribute can be applied to an assembly
- b) [assembly : Employer("Ankit",employeeid.one)].
- c) [Employer("Ankit", employeeid.second)] class employee
{
}

d) All of the mentioned

View Answer

Answer: d

Explanation: None.

8. Which of the following is the correct statement about inspecting an attribute in C#.NET?

- a) An attribute can be inspected at link time
- b) An attribute can be inspected at design time
- c) An attribute can be inspected at run time
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

9. Attributes could be applied to

- a) Method
- b) Class
- c) Assembly
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

10. The [Serializable()] attributes gets inspected at:

- a) compile time
- b) run time
- c) design time
- d) linking time

View Answer

Answer: b

Explanation: None.

C# Questions & Answers – Introduction of Console I/O Operations

1. Which of the classes provide the operation of reading from and writing to the console in C#.NET?

- a) System.Array
- b) System.Output
- c) System.ReadLine
- d) System.Console

View Answer

Answer: d

Explanation: The method for reading and writing to the console in C#.NET is provided by System.Console class. This class gives us access to the standard input, output and standard error streams.

2. Which of the given stream methods provide access to the output console by default in C#.NET?

- a) Console.In
- b) Console.Out
- c) Console.Error
- d) All of the mentioned

View Answer

Answer: b

Explanation: The standard output stream Console.Out sends output to the screen by default.

3. Which of the given stream methods provide the access to the input console in C#.NET?

- a) Console.Out
- b) Console.Error
- c) Console.In
- d) All of the mentioned

View Answer

Answer: c

Explanation: Console.In is an instance of TextReader, and we can use the methods and properties defined by TextReader to access it to read the input from the keyboard.

4. The number of input methods defined by the stream method Console.In in C#.NET is?

- a) 4
- b) 3
- c) 2
- d) 1

View Answer

Answer: b

Explanation: Two basic methods : read() and readline() and third method readkey() introduced in .NET Framework 2.0.

5. Select the correct methods provided by Console.In?

- a) Read(), ReadLine()
- b) ReadKey(), ReadLine()
- c) Read(), ReadLine(), ReadKey()
- d) ReadKey(), ReadLine()

View Answer

Answer: c

Explanation: The two methods Read() and ReadLine() available in .NET Framework 1.0 and Third method ReadKey() was added by .NET Framework 2.0.

6. Choose the output returned when read() reads the character from the console?

- a) String
 - b) Char
 - c) Integer
 - d) Boolean
- View Answer

Answer: c

Explanation: Read() returns the character read from the console. It returns the result. The character is returned as an int, which should be cast to char.

7. Choose the output returned when error condition is generated while read() reads from the console.

- a) False
 - b) 0
 - c) -1
 - d) All of the mentioned
- View Answer

Answer: c

Explanation: Read() returns -1 on error. This method also throws an IOException on failure.

8. Choose the object of TextReader class.

- a) Console.In
 - b) Console.Out
 - c) Console.Error
 - d) None of the mentioned
- View Answer

Answer: a

Explanation: Console.In is an instance(object) of TextReader class and we can use the methods and properties defined by TextReader to invoke the object console.in.

9. Choose the object/objects defined by the Textwriter class.

- a) Console.In
 - b) Console
 - c) Console.Error
 - d) None of the mentioned
- View Answer

Answer: c

Explanation: Console.Out and Console.Error are objects of type TextWriter class.

- a) This will generate an exception
 - b) 0
 - c) Compile time error
 - d) This will generate an exception
Attempted to Divide by Zero
- View Answer

Answer: d

Explanation: None.

11. Choose the methods provided by Console.Out and Console.Error?

- a) Write
- b) WriteLine
- c) WriteKey
- d) Write & WriteLine

View Answer

Answer: d

Explanation: None.

- a) Compile time error
- b) Runs successfully does not print anything
- c) Runs successfully, ask for input and hence displays the result
- d) Syntax Error

View Answer

Answer: c

Explanation: None.

Output : This is a Console Application:

Please enter your lucky number: 3

Square of number is : 9

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C# Questions & Answers – Reading Console Input Operations

1. Name the exception thrown by read() on failure.

- a) InterruptedException
- b) SystemException
- c) SystemInputException
- d) I/O Exception

View Answer

Answer: d

Explanation: read() throws I/O exception on failure.

2. Which of these methods are used to read single character from the console?

- a) get()
- b) getline()
- c) read()
- d) readLine()

View Answer

Answer: c

Explanation: None.

3. Which of these method used to read strings from the console?

- a) get()
- b) getline()
- c) read()
- d) readLine()

View Answer

Answer: d

Explanation: None.

4. Which among the following methods are used to write characters to a string?

- a) StreamWriter
- b) StreamReader
- c) StringWriter
- d) None of the mentioned

View Answer

Answer: c

Explanation: The stream class method writes characters to the string.

5. Which method in Console enables to read individual inputs directly from the keyboard in a non line buffered manner?

- a) Read()
- b) ReadKey()
- c) ReadLine()
- d) All of the mentioned

View Answer

Answer: b

Explanation: The .NET Framework includes a method in Console that enables you to read individual keystrokes directly from the keyboard, in a non-line-buffered manner. This method is called ReadKey(). When it is called, it waits until a key is pressed. When the key is pressed, ReadKey() returns the keystroke immediately.

6. What is the output returned by Console if ReadLine() stores I/O error?

- a) 1
- b) 0
- c) False
- d) I/O EXCEPTION ERROR

View Answer

Answer: d

Explanation: None.

- a) Compile time error
- b) Code run successfully prints nothing on console
- c) Code runs successfully prints input on console
- d) Run time error

View Answer

Answer: d

Explanation: Since only a single character is required to be entered on console when a string is entered , a run time exception is being generated as we had not used Read() which reads single character but used readLine() which reads string and is converted into the char using convert.tochar().

8. Name the method/methods used to read byte streams from the file?

- a) ReadByte()
- b) Read
- c) Readkey()
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

9. Which of these classes are used by Byte streams for input and output operation?

- a) InputStream
- b) InputOutputStream
- c) Reader
- d) All of the mentioned

View Answer

Answer: b

Explanation: Byte stream uses InputStream and OutputStream classes for input and output operation.

10. Which of these method/methods are used to read block or array of bytes from the file?

- a) Read()
- b) ReadByte()
- c) ReadLine()
- d) Readkey()

View Answer

Answer: a

Explanation: To read a block of bytes, use Read(), which has this general form:
int Read(byte[] array, int offset, int count).

C# Questions & Answers – Writing Console Output Operations

1. Select the objects of the class TextWriter which is/are not used to perform the write operations to the console?

- a) Write()
- b) WriteLine()
- c) WriteError()
- d) All of the mentioned

View Answer

Answer: c

Explanation: TextWriter is a class with objects as write() and writeline().


- a) sharp
 - b) c
 - sharp
 - c) c
 - d) sharp c
- View Answer

Answer: b

Explanation: Write() is used here which outputs one or more values to the screen without a newline character.

Output :

c
sharp

3. Choose the correct statement about the WriteLine()? 

- a) Can display one or more value to the screen
- b) Adds a newline character at the end of the each new output
- c) Allows to output data in as many different formats
- d) All of the mentioned

View Answer

Answer: d

Explanation: By the definition of writeline().

- a) 0 6 7 8
 - b) 0 5 7 9
 - c) 5 9 0 7
 - d) 0 5 7 12
- View Answer

Answer: d

Explanation: indexof('i') and lastIndexof('i') are pre defined functions which are used to get the index of first and last occurrence of the character pointed by i in the given array.

Output :

0 5 7 12

- a) hello 6world
 - b) hello good world
 - c) hello goodworld
 - d) hello good world
- View Answer

Answer: c

Explanation: The insert() method inserts one string into another. It is overloaded to accept values of all simple types, plus String and Objects. String is inserted into invoking object at specified position. "Good " is inserted in "Hello World" index 6 giving "Hello Good World".

- a) efil evol i
 - b) lifelove i
 - c) efilevol i
 - d) efil evol i
- View Answer

Answer: c

Explanation: Reverse() an inbuilt method reverses all the characters singly and hence embed them into the string completely.

Output :

```
efilevol i
```

7. Which of the following statement is correct?

- a) reverse() method reverses some characters
- b) reverseall() method reverses all characters
- c) replace() method replaces all instances of a character with new character
- d) replace() method replaces first occurrence of a character in invoking string with another character

View Answer

Answer: c

Explanation: reverse() and replace() are by definition.

8. Which of these classes is used to create an object whose character sequence is mutable?

- a) String()
- b) StringBuilder()
- c) String() & StringBuilder()
- d) None of the mentioned

View Answer

Answer: b

Explanation: Mutable strings are dynamic strings. They can grow dynamically as characters are added to them. stringbuilder class supports those methods that are useful for manipulating dynamic strings.

9. Select the namespace/namespaces which consists of methods like Length(), Indexer(), Append() for manipulating the strings.

- a) System.Class
- b) System.Array
- c) System.Text
- d) None of the mentioned

View Answer

Answer: c

Explanation: The system.text namespace contains the StringBuilder class and hence must include using system.text for manipulating the mutable strings.

10. Select the method used to write single byte to a file?

- a) Write()
- b) Wrteline()
- c) WriteByte()
- d) All of the mentioned

View Answer

Answer: c

Explanation: To write a byte to a file, the WriteByte() method is used. Its simplest form is shown here:

```
void WriteByte(byte value)
```

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C# Questions & Answers – Introduction of Stream Classes

1. Select the namespace on which the stream classes are defined?

- a) System.IO
- b) System.Input
- c) System.Output
- d) All of the mentioned

View Answer

Answer: a

Explanation: The core stream classes are defined within the System.IO namespace. To use these classes, you will usually include the following statement near the top of your program: using System.IO;

2. Choose the class on which all stream classes are defined?

- a) System.IO.stream
- b) Sytem.Input.stream
- c) System.Output.stream
- d) All of the mentioned

View Answer

Answer: a

Explanation: The core stream class is System.IO.Stream. Stream represents a byte stream and is a base class for all other stream classes. It is also abstract, which means that you cannot instantiate a Stream object. Stream defines a set of standard stream operations.

3. Choose the stream class method which is used to close the connection:

- a) close()
- b) static close()
- c) void close()
- d) none of the mentioned

View Answer

Answer: c

Explanation: void close() closes the stream.

4. The method used to write a single byte to an output stream?

- a) void WriteByte(byte value)
- b) int Write(byte[] buffer ,int offset ,int count)
- c) write()
- d) none of the mentioned

View Answer

Answer: a

Explanation: Writes a single byte to an output stream.

5. Select the method which writes the contents of the stream to the physical device.

- a) fflush()
- b) void fflush()
- c) void Flush()
- d) flush()

View Answer

Answer: c

Explanation: The method used to write the contents of the stream to the physical device.

6. Select the method which returns the number of bytes from the array buffer:

- a) void WriteByte(byte value)
- b) int Write(byte[] buffer ,int offset ,int count)
- c) write()
- d) none of the mentioned

View Answer

Answer: b

Explanation: Writes a subrange of count bytes from the array buffer,beginning at buffer[offset], returning the number of bytes written.

7. Name the method which returns integer as -1 when the end of file is encountered.

- a) int read()
- b) int ReadByte()
- c) void readbyte()
- d) none of the mentioned

View Answer

Answer: b

Explanation: Returns an integer representation of the next available byte of input. Returns -1 when the end of the file is encountered.

8. Select the statements which define the stream.

- a) A stream is an abstraction that produces or consumes information
- b) A stream is linked to a physical device by the I/O system
- c) C# programs perform I/O through streams
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

9. Select the action of the method long seek()?

- a) Attempts to readup to count bytes into buffer starting at buffer[offset].
- b) Writes a single byte to an output stream
- c) Sets the current position in the stream to the specified offset from specified origin and hence returns the new position
- d) None of the mentioned

View Answer

Answer: c

Explanation:

```
long Seek(long offset, SeekOrigin origin)
```

Sets the current position in the stream to the specified offset from the specified origin. It returns the new position.

10. Which among the following attempts to read up to count bytes into buffer starting at buffer[offset], returning the number of bytes successfully read?

- a) int ReadByte()
- b) int Read(byte[] buffer ,int offset ,int count)
- c) Void WriteByte(byte value)
- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

C# Questions & Answers – Byte Stream

1. Which of these classes is used to read and write bytes in a file?

- a) FileReader
- b) FileWriter
- c) FileInputStream
- d) InputStreamReader

View Answer

Answer: c

Explanation: None.

2. Which of these data types is returned by every method of OutputStream?

- a) int
- b) float
- c) byte
- d) none of the mentioned

View Answer

Answer: d

Explanation: Every method of OutputStream returns void and throws an IOException in case of errors.

3. Which of these classes is used for input and output operation when working with bytes?

- a) InputStream
- b) Reader
- c) Writer
- d) All of the mentioned

View Answer

Answer: a

Explanation: InputStream & OutputStream are designed for byte stream. Reader and writer are designed for character stream.

4. Which among the following is used for storage of memory aspects?

- a) BufferedStream
- b) FileStream
- c) MemoryStream
- d) None of the mentioned

View Answer

Answer: c

Explanation: A byte stream that uses memory for storage.

5. Which among the following is used for storage of unmanaged memory aspects?

- a) BufferedStream
- b) FileStream
- c) MemoryStream
- d) UnmanagedMemoryStream

View Answer

Answer: d

Explanation: A byte stream that uses unmanaged memory for storage.

6. Which property among the following represents the current position of the stream?

- a) long Length
- b) long Position

- c) int Length
- d) all of the mentioned

View Answer

Answer: a

Explanation: This property contains the length of the stream. This property is read-only.

7. Choose the filemode method which is used to create a new output file with the condition that the file with same name must not exist.

- a) FileMode.CreateNew
- b) FileMode.Create
- c) FileMode.OpenOrCreate
- d) FileMode.Truncate

View Answer

Answer: a

Explanation: Creates a new output file. The file must not already be existing.

8. Choose the filemode method which is used to create a new output file with the condition that the file with same name if exists will destroy the old file:

- a) FileMode.CreateNew
- b) FileMode.Create
- c) FileMode.OpenOrCreate
- d) FileMode.Truncate

View Answer

Answer: b

Explanation: Creates a new output file. Any pre-existing file with the same name will be destroyed.

9. Which of these is a method used to clear all the data present in output buffers?

- a) clear()
- b) flush()
- c) fflush()
- d) close()

View Answer

Answer: b

Explanation: None.

10. Which of these is a method used for reading bytes from the file?

- a) clear()
- b) ReadByte()
- c) put()
- d) write()

View Answer

Answer: b

Explanation: FileStream defines two methods that reads bytes from a file: ReadByte() and Read().

C# Questions & Answers – Character Stream

1. From which of these classes, the character based output stream class Stream Writer is derived?

- a) TextWriter
- b) TextReader
- c) Character Stream
- d) All of the mentioned

View Answer

Answer: a

Explanation: StreamWriter is derived from TextWriter. To create a character-based output stream, wrap a Stream object (such as a FileStream) inside a StreamWriter

2. The advantages of using character stream based file handling are?

- a) they operate directly on unicode characters
- b) they operate directly on bits
- c) they store unicode text
- d) all of the mentioned

View Answer

Answer: a

Explanation: Although byte-oriented file handling is quite common, it is possible to use character-based streams for this purpose. The advantage of the character streams is that they operate directly on Unicode characters. Thus, if you want to store Unicode text, the character streams are certainly the best option.

3. Which among the following classes are used to perform the character based file operations?

- a) StreamReader
- b) InputStream
- c) OutputStream
- d) All of the mentioned

View Answer

Answer: a, b

Explanation: In general, to perform character-based file operations, wrap a FileStream inside a StreamReader or a StreamWriter. These classes automatically convert a byte stream into a character stream, and vice versa.

4. Which of these is a method used to clear all the data present in output buffers?

- a) clear()
- b) flush()
- c) fflush()
- d) close()

View Answer

Answer: b

Explanation: None.

5. Which method of the character stream class returns the numbers of characters successfully read starting at index?

- a) int Read()
- b) int Read(char[] buffer, int index, int count)
- c) int ReadBlock(char[] buffer, int index, int count)
- d) none of the mentioned

View Answer

Answer: c

Explanation: Attempts to read the count characters into buffer starting at buffer[index], returning the number of characters successfully read.

6. Which method of character stream class returns the numbers of characters successfully read starting at count?

- a) int Read()
- b) int Read(char[] buffer, int index, int count)
- c) int ReadBlock(char[] buffer, int index, int count)
- d) none of the mentioned

View Answer

Answer: b

Explanation: Attempts to read the count characters into buffer starting at buffer[count], returning the number of characters successfully read.

7. Which method among the following returns the integer if no character is available?

- a) int peek()
- b) int read()
- c) string ReadLine()
- d) none of the mentioned

View Answer

Answer: a

Explanation: Obtains the next character from the input stream, but does not remove that character. Returns -1 if no character is available.

8. Which of the following is used to perform all input & output operations in C#?

- a) streams
- b) Variables
- c) classes
- d) Methods

View Answer

Answer: a

Explanation: Streams are used for input and output operations in any programming language.

9. Which of the following is a type of stream in C#?

- a) Integer stream
- b) Character stream
- c) Float stream
- d) Long stream

View Answer

Answer: b

Explanation: Two types of streams – Byte stream and character stream are defined in C#.

- a) the name of the file to open
- b) specifies the full path of file
- c) if append is true, the file is appended to the end of the existing file
- d) all of the mentioned

View Answer

Answer: d

Explanation: StreamWriter(string path, bool append) .Here, path specifies the name of the file to be opened, which can include a full path specifier. In the second form, if append is true, then the output is appended to the end of an existing file. Otherwise, output overwrites the specified file.

C# Questions & Answers – Fundamental of Delegates

1. The 'ref' keyword can be used with which among the following?

- a) Static function/subroutine
- b) Static data
- c) Instance function/subroutine
- d) All of the mentioned

View Answer

Answer: a

Explanation: None.

2. To implement delegates, the necessary condition is?

- a) class declaration
- b) inheritance
- c) runtime polymorphism
- d) exceptions

View Answer

Answer: a

Explanation: None.

3. Suppose a Generic class called as SortObjects is to be made capable of sorting objects of any type(integer, single, byte etc).Then, which of the following programming constructs is able to implement the comparison function?

- a) interface
- b) encapsulation
- c) delegate
- d) attribute

View Answer

Answer: c

Explanation: None.

4. To generate a simple notification for an object in runtime, the programming construct to be used for implementing this idea?

- a) namespace
- b) interface
- c) delegate
- d) attribute

View Answer

Answer: c

Explanation: None.

5. Choose the incorrect statement among the following about the delegate?

- a) delegates are of reference types
- b) delegates are object oriented
- c) delegates are type safe
- d) none of the mentioned

View Answer

Answer: d

Explanation: None.

6. Which among the following is the correct statement about delegate declaration ?

delegate void del(int i);

- a) on declaring the delegate, a class called del is created
- b) the del class is derived from the MulticastDelegate class
- c) the del class will contain a one argument constructor and an invoke() method
- d) all of the mentioned

View Answer

Answer: d

Explanation: None.

7. Which of the following is an incorrect statement about delegate?

- a) a single delegate can invoke more than one method
- b) delegates could be shared
- c) delegates are type safe wrappers for function pointers
- d) delegate is a value type

View Answer

Answer: c

Explanation: None.

8. Which among the following differentiates a delegate in C#.NET from a conventional function pointer in other languages?

- a) delegates in C#.NET represent a new type in the Common Type System
- b) delegates allows static as well as instance methods to be invoked
- c) delegates are type safe and secure
- d) none of the mentioned

View Answer

Answer: d

Explanation: None.

9. Choose the incorrect statement about delegates?

- a) delegates are not type safe
- b) delegates can be used to implement callback notification
- c) delegate is a user defined type
- d) delegates permits execution of a method in an asynchronous manner

View Answer

Answer: a

Explanation: None.

10. Which of the following statements is correct about a delegate?

- a) inheritance is a prerequisite for using delegates
- b) delegates are not type safe
- c) delegates provides wrappers for function pointers
- d) none of the mentioned

View Answer

Answer: c

Explanation: None.

C# Questions & Answers – Delegates in Detail

c)

```
csharp s = new csharp();  
delegate void del = new delegate(ref abc);  
del();
```

d) all of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

c)

```
csharp s = new csharp();  
delegate void del = new delegate(ref abc);  
del();
```

d) none of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

c)

```
csharp s = new csharp();  
delegate void del = new delegate(ref abc);  
del();
```

d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

c)

```
csharp s = new csharp();  
delegate void del = new delegate(ref abc);  
del();
```

a) Test Your

b) ur C#.NET

c) ur C#.NET Skills

d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

c)

```
csharp s = new csharp();  
delegate void del = new delegate(ref abc);  
del();
```

a) Test Your

b) Test-Your-C#.NET-Skills
c) ur C#.NET Skills
d) None of the mentioned
View Answer

Answer: b
Explanation: None.
Output:

Test-Your-C#.NET-Skills

c)

```
csharp s = new csharp();  
delegate void del = new delegate(ref abc);  
del();
```

6. Choose the statements which makes delegate in C#.NET different from a normal class?
a) Delegates in C#.NET is a base class for all delegates type
b) Delegates created in C#.NET are further not allowed to derive from the delegate types that are created
c) Only system and compilers can derive explicitly from the Delegate or MulticastDelegate class
d) All of the mentioned
View Answer

Answer: d
Explanation: None.

c)

```
csharp s = new csharp();  
delegate void del = new delegate(ref abc);  
del();
```

7. Which of the following are the correct statements about delegates?
a) Delegates can be used to implement callback notification
b) Delegates permit execution of a method on a secondary thread in an asynchronous manner
c) Delegate is a user defined type
d) All of the mentioned
View Answer

Answer: d
Explanation: None.

c)

```
csharp s = new csharp();  
delegate void del = new delegate(ref abc);  
del();
```

a) Test Ykur C#.NET Skills
b) Test Ykour C#.NET Skills
c) Test Your C#.NET Skills
d) Test ur C#.NET Skills
View Answer

Answer: c
Explanation: None.
Output:

Test Your C#.NET Skills

c)

```
csharp s = new csharp();  
delegate void del = new delegate(ref abc);  
del();
```

9. Incorrect statements about delegates are?

- a) Delegates are reference types
- b) Delegates are object oriented
- c) Delegates are type safe
- d) Only one method can be called using a delegate

View Answer

Answer: d

Explanation: None.

c)

```
csharp s = new csharp();  
delegate void del = new delegate(ref abc);  
del();
```

10. Select the modifiers which control the accessibility of the delegate:

- a) new
- b) protected
- c) public
- d) all of the mentioned

View Answer

Answer: d

Explanation: By definition

C# Questions & Answers – Fundamental of Generics

1. What is meant by the term generics?

- a) parameterized types
- b) class
- c) structure
- d) interface

View Answer

Answer: a

Explanation: The term generics means parameterized types. Parameterized types are important because they enable us to create classes, structures, interfaces, methods, and delegates in which, the type of data upon which they operate is specified as a parameter.

2. Are generics in C# are same as the generics in java and templates in C++?

- a) Yes
- b) No
- c) May be
- d) None of the mentioned

View Answer

Answer: b

Explanation: Although C# generics are similar to templates in C++ and generics in Java, they are not the same as either. In fact, there are some fundamental differences among these three approaches to generics

3. Choose the advantages of using generics?

- a) Generics facilitate type safety
- b) Generics facilitate improved performance and reduced code
- c) Generics promote the usage of parameterized types
- d) All of the mentioned

View Answer

Answer: d

Explanation: By definition of generics.

- a) Generics class declaration
- b) Generic constructor declaration
- c) A simple class declaration
- d) All of the mentioned

View Answer

Answer: a

Explanation: class Gen This defines the generics declaration where 'T' is the name of type parameter. This parameter is used as a placeholder for the actual type that will be specified when a Gen object is created. Gen is a generic class. T is used to declare a variable called 'ob'.

- a) Generics class Declaration
- b) Declaration of variable
- c) Generic constructor declaration
- d) All of the mentioned

View Answer

Answer: c

Explanation: None.

6. Select the type argument of an open constructed type?

- a) Gen<int>

- b) Gen<T>
 - c) Gen<>
 - d) None of the mentioned
- View Answer

Answer: c

Explanation: A generic type, such as Gen, is an abstraction. In C# terminology, a construct such as Gen is called an open constructed type, because the type parameter T (rather than an actual type, such as int) is specified.

7. Which among the given classes is present in System.Collection.Generic.namespace?

- a) Stack
- b) Tree
- c) Sorted Array
- d) All of the mentioned

View Answer

Answer: a

Explanation: None.

8. Which of these is a correct way of defining generic method?

- a) name(T1, T2, ..., Tn) { /* ... */ }
- b) public name { /* ... */ }
- c) class name[T1, T2, ..., Tn] { /* ... */ }
- d) name{T1, T2, ..., Tn} { /* ... */ }

View Answer

Answer: b

Explanation: The syntax for a generic method includes a type parameter, inside angle brackets, and appears before the method's return type. For static generic methods, the type parameter section must appear before the method's return type.

9. Which of these type parameters is used for generic methods to return and accept any type of object?

- a) K
- b) N
- c) T
- d) V

View Answer

Answer: c

Explanation: T is used for type, A type variable can be any non-primitive type you specify: any class type, any interface type, any array type, or even another type variable.

d) all of the mentioned

View Answer

Answer: b

Explanation: None.

-
- a) 0
 - b) Runtime Error
 - c) 40
 - d) Compile time Error

View Answer

Answer: c

Explanation: None.

Output :

40.

- a) Compile time error
- b) Csharp
- c) 0
- d) Run time error

View Answer

Answer: b

Explanation: None.

Output :

Csharp

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C# Question & Answers – Generic Methods

- a) Class MyConatiner requires that its type argument must implement Icomparable interface
- b) There are multiple constraints on type argument to MyConatiner class
- c) Compiler will report an error
- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

- a) Run time exception error
- b) Compile time error
- c) Code runs successfully and prints required output
- d) None of the mentioned

View Answer

Answer: c

Output :

```
hi
20
```

3. Which of given statements are valid about generics in .NET Framework?

- a) generics are useful in collection classes in .NET framework
- b) generics delegates are not allowed in C#.NET
- c) generics is a not language feature
- d) all of the mentioned

View Answer

Answer: a

Explanation: None.

- a) Compile time error
- b) Generic being a keyword cannot be used as a class name
- c) Runtime error
- d) Code runs successfully

View Answer

Answer: d

Output :

```
Hello
```

- a) Compile time error
- b) A
- c) Run time error
- d) Code runs successfully but prints nothing

View Answer

Answer: b

Output :

```
A
```

6. Which of the following is a valid statement about generic procedures in C#.NET are?

- a) All procedures in a Generic class are generic
- b) Generic procedures should take at least one type parameter
- c) Only those procedures labeled as Generic are Generic
- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

- a) Class MyConatiner requires that its type argument must implement Icomparable interface
- b) There are multiple constraints on type argument to MyContainer class
- c) Type argument of class MyContainer should be Icomparable
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

- a) code runs successfully but prints nothing
- b) code runs successfully and prints 1
- c) program will give run time error
- d) compile time error

View Answer

Answer: d

Explanation: compiler will give error as operator '+' is not defined for types 'T' and 'int'

9. Which among the given classes represents System.Collections.Generic namespace?

- a) SortedDictionary
- b) Sorted Array
- c) Stack
- d) All of the mentioned

View Answer

Answer: a

Explanation: None.

- a) Compile time error
- b) Csharp
- c) 0
- d) Run time error

View Answer

Answer: b

Output :

Csharp

- a) 0
- b) 30
- c) Runtime Error
- d) Compile time Error

View Answer

Answer: b

Explanation: None.

Output :

30.

- a) C++
- b) 20
- c) C++
- 20
- d) 0

View Answer

Answer: c

Explanation: None.

Output :

```
C++  
20
```

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C# Questions & Answers – Fundamental of LINQ

1. Assume 2 columns named as Product and Category how can be both sorted out based on first by category and then by product name?

- a) var sortedProds = _db.Products.OrderBy(c => c.Category)
- b) var sortedProds = _db.Products.OrderBy(c => c.Category) + ThenBy(n => n.Name)
- c) var sortedProds = _db.Products.OrderBy(c => c.Category) . ThenBy(n => n.Name)
- d) all of the mentioned

View Answer

Answer: c

Explanation: var sortedProds = _db.Products.OrderBy(c => c.Category) . ThenBy(n => n.Name).

2. Choose the wrong statement about the LINQ?

- a) The main concept behind the linq is query
- b) linq makes use of foreach loop to execute the query
- c) It is not required that linq should make use of IEnumerable interface
- d) None of the mentioned

View Answer

Answer: c

Explanation: LINQ at core is the query. A query specifies what data will be obtained from a data source. Query in linq is executed using foreach loop. In order for a source of data to be used by LINQ, it must implement the IEnumerable interface.

3. Choose the namespace in which the interface IEnumerable is declared?

- a) System.Collections
- b) System.Collections.Generic
- c) Both System.Collections & System.Collections.Generic
- d) None of the mentioned

View Answer

Answer: b

Explanation: By definition.

4. Can we use linq to query against a DataTable?

- a) Yes
- b) No
- c) Either Yes or No
- d) None of the mentioned

View Answer

Answer: b

Explanation: We cannot use query against the DataTable's Rows collection, since DataRowCollection doesn't implement IEnumerable. We need to use the AsEnumerable() extension for DataTable. As an example:

```
var results = from myRow in myDataTable.AsEnumerable()  
where myRow.Field<int>("RowNo") == 1  
select myRow;
```

- a) 0, 1, -2, -4, 5
- b) 1, 3, 0, 5
- c) 1, 3, 5
- d) Run time error

View Answer

Answer: b

Explanation: A simple linq query generated program to show a query is implemented using linq.

Output :

1, 3, 0, 5

6. Select the namespace which should be included while making use of LINQ operations:

- a) System.Text
- b) System.Collections.Generic
- c) System.Linq
- d) None of the mentioned

View Answer

Answer: c

Explanation: By definition.

- a) code run successfully prints nothing
- b) run time error
- c) code run successfully and executes output
- d) compile time error

View Answer

Answer: c

Explanation: -2, 0, -4

- a) Prints nothing code runs successfully
- b) Run time error
- c) Arranged in descending order code runs successfully
- d) Compile time error

View Answer

Answer: c

Explanation: None.

Output :

5, 3, 1, 0, -2, -4

- a) Code runs successfully prints nothing
- b) Code runs successfully prints required output
- c) Run time error
- d) Compile time error

View Answer

Answer: b

Explanation: None.

Output :

4, 3, 5

- a) Code runs successfully prints nothing
- b) Run time error
- c) Code runs successfully prints required output
- d) Compile time error

View Answer

Answer: c

Explanation: None.

Output :

The largest values in nums: 78

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C# Questions & Answers – Operation with LINQ

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int[] nums = {3, 1, 2, 5, 4};
6.         var ltAvg = from n in nums
7.                     let x = nums.Average()
8.                     where n < x
9.                     select n;
10.        Console.WriteLine("The average is " + nums.Average());
11.        Console.ReadLine();
12.    }
13. }
```

- a) a a l h a b g m m a p e t a
- b) a a a a a b e g h l m m p t
- c) a g h l m m p t a a a a b e
- d) Run time error

View Answer

Answer: b

Explanation: None.

Output:

```
a a a a a b e g h l m m p t
```

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int[] nums = {3, 1, 2, 5, 4};
6.         var ltAvg = from n in nums
7.                     let x = nums.Average()
8.                     where n < x
9.                     select n;
10.        Console.WriteLine("The average is " + nums.Average());
```

```

11.         Console.ReadLine();
12.     }
13. }

```

- a) code run successfully prints nothing
- b) run time error
- c) code run successfully prints multiple of 2
- d) compile time error

View Answer

Answer: c

Explanation: We had created the queries by using query method such as Where() and Select(). This creates a query called posNums that creates a sequence of positive values in nums in descending order using the method OrderByDescending().

Output:

```
10 6 2
```

3. What will be the output of the given code snippet?

```

1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int[] nums = {3, 1, 2, 5, 4};
6.         var ltAvg = from n in nums
7.                     let x = nums.Average()
8.                     where n < x
9.                     select n;
10.        Console.WriteLine("The average is " + nums.Average());
11.        Console.ReadLine();
12.    }
13. }

```

- a) Run time error
- b) 3
- c) 5
- d) Compile time error

View Answer

Answer: b

Explanation: Built in method Avg() is used

Output:

```
3
```

3. What will be the output of the given code snippet?

```
1. class Program
```

```

2.  {
3.      static void Main(string[] args)
4.      {
5.          int[] nums = {3, 1, 2, 5, 4};
6.          var ltAvg = from n in nums
7.                      let x = nums.Average()
8.                      where n < x
9.                      select n;
10.         Console.WriteLine("The average is " + nums.Average());
11.         Console.ReadLine();
12.     }
13. }

```

- a) Compile time error
- b) Run time error
- c) 5 is a factor of 10
- 7 is not a factor of 10
- d) 5 is a factor of 10

View Answer

Answer: d

Explanation: The current program has introduced the concept of expression tree. An expression tree is a representation of a lambda expression as data. The program illustrates the two key steps in using an expression tree. First, it creates an expression tree by using this statement:

Expression>

IsFactorExp = (n, d) => (d != 0) ? (n % d) == 0 : false;

Second, this constructs a representation of a lambda expression in memory.

Output:

5 is a factor of 10

3. What will be the output of the given code snippet?

```

1.  class Program
2.  {
3.      static void Main(string[] args)
4.      {
5.          int[] nums = {3, 1, 2, 5, 4};
6.          var ltAvg = from n in nums
7.                      let x = nums.Average()
8.                      where n < x
9.                      select n;
10.         Console.WriteLine("The average is " + nums.Average());
11.         Console.ReadLine();

```

12. }

13. }

5. Choose the namespace in which Expression trees are encapsulated:

- a) System.Linq
- b) System.Linq.Expressions
- c) System.Text
- d) System.Collections.Generic

View Answer

Answer: b

Explanation: By definition.

3. What will be the output of the given code snippet?

```

1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int[] nums = {3, 1, 2, 5, 4};
6.         var ltAvg = from n in nums
7.                     let x = nums.Average()
8.                     where n < x
9.                     select n;
10.        Console.WriteLine("The average is " + nums.Average());
11.        Console.ReadLine();
12.    }
13. }
```

- a) from n in nums where n > 0
select n
- b) from n in nums where n > 0
select n.Count()
- c) (from n in nums where n > 0
select n).Count();
- d) Both “from n in nums where n > 0 select n.Count()” & “(from n in nums where n > 0 select n).Count();”

View Answer

Answer: c

Explanation: None.

Output:

advertisement

```

int len = (from n in nums where n > 0
select n).Count();
```

3. What will be the output of the given code snippet?

```

1. class Program
```

```

2.  {
3.      static void Main(string[] args)
4.      {
5.          int[] nums = {3, 1, 2, 5, 4};
6.          var ltAvg = from n in nums
7.                      let x = nums.Average()
8.                      where n < x
9.                      select n;
10.         Console.WriteLine("The average is " + nums.Average());
11.         Console.ReadLine();
12.     }
13. }

```

- a) Execution of code with nothing being printed
- b) Execution of code with printing all numbers
- c) Execution of code with counting total numbers greater than zero
- d) Run time error

View Answer

Answer: c

Explanation: None.

Output:

3

3. What will be the output of the given code snippet?

```

1.  class Program
2.  {
3.      static void Main(string[] args)
4.      {
5.          int[] nums = {3, 1, 2, 5, 4};
6.          var ltAvg = from n in nums
7.                      let x = nums.Average()
8.                      where n < x
9.                      select n;
10.         Console.WriteLine("The average is " + nums.Average());
11.         Console.ReadLine();
12.     }
13. }

```

- a) Compile time error

b) Run time error

c) 1 -2 0 0 -1 2

d) 2 -1 0 0 -2 1

View Answer

Answer: c

Explanation: Query solved using lambda expression .The code “var posNums = nums.Where(n => n < 10).Select(r => r%3)” creates a query called posNums that creates a sequence of the values less than 10 in nums.

Output:

```
1 -2 0 0 -1 2
```

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int[] nums = {3, 1, 2, 5, 4};
6.         var ltAvg = from n in nums
7.                     let x = nums.Average()
8.                     where n < x
9.                     select n;
10.        Console.WriteLine("The average is " + nums.Average());
11.        Console.ReadLine();
12.    }
13. }
```

a) Compile time error

b) Run time error

c) facebook.com

netflix.net

google.net

d) google.net

netflix.net

View Answer

Answer: d

Explanation: Searches for the string which ends with .net.

Output:

```
google.net
netflix.net
```

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
```



```
4.      {
5.          int[] nums = {3, 1, 2, 5, 4};
6.          var ltAvg = from n in nums
7.                      let x = nums.Average()
8.                      where n < x
9.                      select n;
10.         Console.WriteLine("The average is " + nums.Average());
11.         Console.ReadLine();
12.     }
13. }
```

- a) 10 2 -4 -6
 - b) 5 1 -2 -3
 - c) 1 5 -2 -3
 - d) Run time error
- View Answer

Answer: a

Explanation: None.

Output:

10 2 -4 -6

C# Questions & Answers – Introduction of Array Class

1. Select the class which is the base class for all arrays in C#?

- a) Array
- b) Text
- c) arrays
- d) Both Array & Text

View Answer

Answer: a

Explanation: None.

2. Select the interfaces implemented by array class:

- a) ICloneable, ICollection
- b) IEnumerable, IStructuralComparable, IStructuralEquatable
- c) ICloneable, ICollection, IList
- d) Only IEnumerable, IStructuralComparable, IStructuralEquatable & ICloneable, ICollection, IList

View Answer

Answer: d

Explanation: None.

3. Choose the correct statement about the IComparer interface in C#:

- a) The IComparer interface is in System.Collections
- b) It defines a method called Compare(), which compares the values of two objects
- c) Both The IComparer interface is in System.Collections & It defines a method called Compare(), which compares the values of two objects
- d) None of the mentioned

View Answer

Answer: c

Explanation: The IComparer interface is in System.Collections. It defines a method called Compare(), which compares the values of two objects. It is shown here: `int Compare(object x, object y)`. It returns greater than zero if x is greater than y, less than zero if x is less than y, and zero if the two values are equal.

4. Choose the correct statement about the IComparer interface in C#:

- a) The IComparer is in System.Collections.Generic
- b) It defines a generic form of Compare()
- c) Only The IComparer is in System.Collections.Generic
- d) Both The IComparer is in System.Collections.Generic & It defines a generic form of Compare()

View Answer

Answer: d

Explanation: IComparer is in System.Collections.Generic. It defines a generic form of Compare(), which is shown here: `int Compare(T x, T y)`. It works the same as its non-generic relative: returning greater than zero if x is greater than y, less than zero if x is less than y, and zero if the two values are equal.

- a) a property is read only by nature
- b) property is true if the array object is read only and false otherwise
- c) value is false for arrays
- d) all of the mentioned

View Answer

Answer: d

Explanation: A read-only property that is true if the Array object is read-only and false if it is not. This value is false for arrays.

- a) Searches a portion of the array specified by array for the value specified by value
- b) The search begins at the index specified by index and is restricted to length elements. Returns the index of the first match.
- c) If value is not found, returns a zero value
- d) All of the mentioned

View Answer

Answer: b

Explanation: Searches a portion of the array specified by array for the value specified by value. The search begins at the index specified by index and is restricted to length elements. Returns the index of the first match. If the value is not found, returns a negative value. The array should be sorted and one-dimensional.

- a) True
- 0
- b) Run time error
- c) True
- 9
- d) None of the mentioned

View Answer

Answer: c

Explanation: Using Built in method Sort() , first array is sorted then index of number '14' is searched using array class built in method Array.BinarySearch(nums, 14) and hence at last if loop is used to make comparison of index position with random position '9' chosen here.
Output:

```
True
9
```

- a) Array elements:
beta alpha gamma
Array elements now:
ammag ahpla ateb
- b) Array elements:
beta alpha gamma
Array elements now:
gamma beta alpha
- c) Array elements:
beta alpha gamma
Array elements now:
gamma alpha beta
- d) None of the mentioned

View Answer

Answer: c

Explanation: 'Reverse()' a built in method to reverse an array of string defined in array class is used.
Output:

advertisement

```
Array elements:
beta alpha gamma
Array elements now:
gamma alpha beta
```

9. Which among the following is the wrong way to define and initialize an array of 4 integers?

- a) `int[] a = {25, 30, 40, 5}`
- b) `int[] a;`
`a = new int[3]` `a[0] = 25`
`a[1] = 30`

```
a[2] = 40
a[3] = 5
c) int[] a
a = new int[4]{25, 30, 40, 5}
d) int[] a
a = new int[4] a[0] = 25
a[1] = 30
a[2] = 40
a[3] = 5
View Answer
```

Answer: b

Explanation: None.

10. Which method will be used to copy content from one array to another array?

- a) Copy()
 - b) copy()
 - c) Both Copy() & copy()
 - d) None of the mentioned
- View Answer

Answer: a

Explanation: Copy() is a built-in method of array class used to copy the elements from one array to another array

- a) Run time error
 - b) 5, 4, 3, 2, 1
 - c) Compile time error
 - d) None of the mentioned
- View Answer

Answer: b

Explanation: Reverse built in method() of array class is used to reverse the given array.

Output:

5, 4, 3, 2, 1

C# Question & Answers – Runtime Type

1. Which mechanism among the following helps in identifying a type during the execution of a program?

- a) Reflection
- b) Runtime type ID
- c) Both Reflection & Runtime type ID
- d) None of the mentioned

View Answer

Answer: b

Explanation: Runtime type ID is the mechanism that lets identify a type during the execution of a program. Using Runtime type ID we can construct and use objects at runtime.

2. Select the statement which are correct about RTTI(Runtime type identification):

- a) It allows the type of an object to be determined during program execution
- b) It tells what type of object is being referred to by a base class reference determined by RTTI
- c) Helps in prevention of an invalid cast exception in advance
- d) All of the mentioned

View Answer

Answer: d

Explanation: Runtime type identification (RTTI) allows the type of an object to be determined during program execution. RTTI is useful for many reasons .For example, we can discover precisely what type of object is being referred to by a base-class reference. Another use of RTTI is to test in advance whether a cast will succeed, preventing an invalid cast exception.

3. Select the Keyword which supports the run time type identification:

- a) is, as
- b) as, typeof
- c) Both is, as & as, typeof
- d) Only is, as

View Answer

Answer: c

Explanation: None.

- a) Determines the type of an object
- b) a simple deceleration
- c) Both Determines the type of an object & a simple deceleration
- d) None of the mentioned

View Answer

Answer: a

Explanation: The given expression determines the type of an object using the 'is' operator .Here, expr is an expression that describes an object whose type is being tested against type. If the type of expr is the same as, or compatible with, type, then the outcome of this operation is true. Otherwise, it is false

- a) a is an A
This won't display — a not derived from B
- b) a is an A
b is an A because it is derived from A
- c) b is an A because it is derived from A
This won't display — a not derived from B
- d) "Both "a is an A
This won't display — a not derived from B"" & "a is an A
b is an A because it is derived from A""

View Answer

Answer: a

Explanation: We have to include the line 'This won't display — a not derived from B' this is because 'a' is object of class 'A' which itself is derived from class 'B'. So, 'a' is a B

Output:

```
a is an A
This won't display -- a not derived from B
```

6. Which operator among the following supports the operation of conversion at runtime without generating the exceptions?

- a) is
- b) as
- c) typeof
- d) all of the mentioned

View Answer

Answer: b

Explanation: By definition.

7. Which operator among the following is used to perform the operation of boxing, unboxing, reference and identity conversions?

- a) is
- b) as
- c) typeof
- d) all of the mentioned

View Answer

Answer: b

Explanation: use the as operator, which has this general form:

```
expr as type
```

advertisement

Here, expr is the expression being converted to type. If the conversion succeeds, then a reference to type is returned. Otherwise, a null reference is returned. The as operator can be used to perform only reference, boxing, unboxing, or identity conversions.

-
- a) Run time error
 - b) The cast in b = (B) a is NOT allowed
 - c) The cast in b = (B) a is allowed
 - d) Compile time error

View Answer

Answer: b

Explanation: since a is not a B, the cast of a to B is invalid and is prevented by the if statement.

Output:

```
The cast in b = (B) a is NOT allowed
```

9. Which operator among the following supplies the information about characteristics of a typeof?

- a) is
- b) as
- c) typeof
- d) none of the mentioned

View Answer

Answer: c

Explanation: C# supplies the typeof operator. It retrieves a System.Type object for a given type. Using this object, we can determine the type's

characteristics.

- a) Is a class
Is abstract
 - b) Is abstract
Is a class
 - c) System.IO.StreamReader
Is a class
Is concrete
 - d) Both Is a class
Is abstract & System.IO.StreamReader
Is a class
Is concrete
- View Answer

Answer: c

Explanation: This program obtains a Type object that describes StreamReader. It then displays the fullname, and determines if it is a class and whether it is abstract.

Output:

```
System.IO.StreamReader  
Is a class  
Is concrete
```

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C# Questions & Answers – Introduction of Reflections

1. Which feature enables to obtain information about the use and capabilities of types at runtime?

- a) Runtime type ID
- b) Reflection
- c) Attributes
- d) None of the mentioned

View Answer

Answer: b

Explanation: Reflection is the feature that enables you to obtain information about a type. The term reflection comes from the way the process works: A Type object mirrors the underlying type that it represents. Reflection is a powerful mechanism because it allows us to learn and use the capabilities of types that are known only at runtime.

2. Choose the namespace which consists of classes that are part of .NET Reflection API:

- a) System.Text
- b) System.Name
- c) System.Reflection
- d) None of the mentioned

View Answer

Answer: c

Explanation: Many of the classes that support reflection are part of the .NET Reflection API, which is in the System.Reflection namespace. eg : using System.Reflection;

3. Choose the correct statement about System.Type namespace:

- a) Core of the reflection subsystem as it encapsulates a type
- b) Consists of many methods and properties that can be used to obtain information about a type at runtime
- c) Both Core of the reflection subsystem as it encapsulates a type & Consists of many methods and properties that can be used to obtain information about a type at runtime
- d) Only Consists of many methods and properties that can be used to obtain information about a type at runtime

View Answer

Answer: c

Explanation: System.Type is at the core of the reflection subsystem because it encapsulates a type. It contains many properties and methods that you will use to obtain information about a type at runtime.

4. Choose the class from which the namespace 'System.Type' is derived:

- a) System.Reflection
- b) System.Reflection.MemberInfo
- c) Both System.Reflection & System.Reflection.MemberInfo
- d) None of the mentioned

View Answer

Answer: b

Explanation: Type is derived from an abstract class called System.Reflection.MemberInfo

5. What does the following property signify?

MemberTypes MemberType

- a) Helps in distinguishing kinds of members
- b) Property helps in determining if member is a field, method, property or event
- c) Both Helps in distinguishing kinds of members & Property helps in determining if member is a field, method, property or event
- d) None of the mentioned

View Answer

Answer: c

Explanation: This property obtains the kind of the member. This value indicates if the member is a field, method, property, event, or constructor among others.

6. The property signifies "Obtains a Module object that represents the module (an executable file) in which the reflected type resides". Choose the property which specifies the following statement:

- a) Type DeclaringType
- b) int MetadataToken
- c) Module Module
- d) Type ReflectedType

View Answer

Answer: c

Explanation: By definition.

7. Choose the method defined by MemberInfo:

- a) GetCustomAttributes()
- b) IsDefined()
- c) GetCustomAttributesData()
- d) All of the mentioned

View Answer

Answer: d

Explanation: MemberInfo includes two abstract methods: GetCustomAttributes() and IsDefined(). These both relate to attributes. The first obtains a list of the custom attributes associated with the invoking object. The second determines if an attribute is defined for the invoking object. The .NET Framework Version 4.0 adds a method called GetCustomAttributesData(), which returns information about custom attributes

- a) Returns an array of MethodInfo objects
- b) Returns a list of the public methods supported by the type by using GetMethods()
- c) Both Returns an array of MethodInfo objects & Returns a list of the public methods supported by the type by using GetMethods()
- d) None of the mentioned

View Answer

Answer: c

Explanation: A list of the public methods supported by the type can be obtained by using GetMethods(). It returns an array of MethodInfo objects that describe the methods supported by the invoking type. MethodInfo is in the System.Reflection namespace.

- a) Calling a type using invoke()
- b) Any arguments that need to be passed to the method are specified in the array parameters
- c) The value returned by the invoked method is returned by Invoke()
- d) All of the mentioned

View Answer

Answer: d

Explanation: Here, obj is a reference to the object on which the method is invoked. (For static methods, you can pass null to obj.) Any arguments that need to be passed to the method are specified in the array parameters. If no arguments are needed, parameters must be null. Also, parameters must contain exactly the same number of elements as the number of arguments.

- a) A property defined by MemberInfo
- b) Obtains a list of the type arguments bound to a closed constructed generic type
- c) The list may contain both type arguments and type parameters
- d) All of the mentioned

View Answer

Answer: d

Explanation: The following method Obtains a list of the type arguments bound to a closed constructed generic type or the type parameters if the

specified type is a generic type definition. For an open constructed type, the list may contain both type arguments and type parameters.

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C# Questions & Answers – Collection Classes

1. Which among the following is not the ordered collection class?

- a) BitArray
- b) Queue
- c) Stack
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

2. Which among the following is not an interface declared in System.Collection namespace?

- a) IDictionaryComparer
- b) IEnumerable
- c) IEnumerator
- d) Icomparer

View Answer

Answer: a

Explanation: None.

3. Which among the following is the correct way to find out the number of elements currently present in an ArrayListCollection called arr?

- a) arr.Capacity
- b) arr.Count
- c) arr.MaxIndex
- d) arr.UpperBound

View Answer

Answer: b

Explanation: None.

- a) Unsimilar elements like "Csharp",7,3,8 cannot be stored in the same stack collection.
- b) Boolean values can never be stored in Stack collection
- c) Perfectly workable code
- d) All of the mentioned

View Answer

Answer: c

Explanation: None.

5. Which is the correct statement about an ArrayList collection that implements the IEnumerable interface?

- a) To access members of ArrayList from the inner class, it is necessary to pass ArrayList class reference to it
- b) The inner class of ArrayList can access ArrayList class members
- c) The ArrayList class consist of inner class that implements the IEnumerator interface
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

d) All of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

8. Which statements among the following are correct about the Collection Classes available in Framework Class Library?

- a) Elements of a collection cannot be transmitted over a network
- b) Elements stored in a collection can be modified only if all the elements are of similar types
- c) Elements stored in a Collection can be retrieved but cannot be modified
- d) Collection classes make use of efficient algorithms to manage the collection, hence improving the performance of the program

[View Answer](#)

Answer: d

Explanation: None.

9. Among the given collections which one is I/O index based?

- a) ArrayList
- b) List
- c) Stack
- d) Queue

[View Answer](#)

Answer: a

Explanation: None.

10. Which among the given statements are correct about the Stack collection?

- a) It can be used for evaluation of expressions
- b) It is used to maintain a FIFO list
- c) Top most element of the Stack collection can be accessed using the Peek()
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

[View Answer](#)

Answer: b

Explanation: None.

12. In which of the following collections is the I/O based on a key?

- a) BitArray
- b) SortedList
- c) Queue
- d) Stack

[View Answer](#)

Answer: b

Explanation: None.

13. The wrong statements about a HashTable collection are?

- a) It is a keyed collection
- b) It is an ordered collection
- c) It's not an indexed collection

d) It implements a IDictionaryEnumerator interface in its inner class

View Answer

Answer: b

Explanation: None.

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C# Question & Answers – Maths Class

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         double x = 4.772;
6.         double y = 4.76;
7.         double z = Math.Max(x, y);
8.         Console.WriteLine(z);
9.         Console.ReadLine();
10.    }
11. }
```

1. Which of these classes contains only floating point functions?

- a) Math
 - b) Process
 - c) System
 - d) Object
- View Answer

Answer: a

Explanation: Math class contains all the floating point functions that are used for geometry, trigonometry, as well as several general purpose methods. Example : sin(), cos(), exp(), sqrt() etc.

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         double x = 4.772;
6.         double y = 4.76;
7.         double z = Math.Max(x, y);
8.         Console.WriteLine(z);
9.         Console.ReadLine();
10.    }
11. }
```

- a) 2.0
- b) 4.0

- c) 8
- d) 8.0

View Answer

Answer: c

Explanation: None.

Output :

8

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         double x = 4.772;
6.         double y = 4.76;
7.         double z = Math.Max(x, y);
8.         Console.WriteLine(z);
9.         Console.ReadLine();
10.    }
11. }
```

- a) true
- b) false
- c) 4.772
- d) 4.76

View Answer

Answer: c

Explanation: None.

Output :

4.772

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         double x = 4.772;
6.         double y = 4.76;
7.         double z = Math.Max(x, y);
8.         Console.WriteLine(z);
```

9. `Console.ReadLine();`

10. `}`

11. `}`

4. What is the value of double constant 'E' defined in Math class?

- a) approximately 3
- b) approximately 3.14
- c) approximately 2.72
- d) approximately 0

View Answer

Answer: c

Explanation: None.

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         double x = 4.772;
6.         double y = 4.76;
7.         double z = Math.Max(x, y);
8.         Console.WriteLine(z);
9.         Console.ReadLine();
10.    }
11. }
```

- a) 1 2 0 0
- b) 1 2 1 2
- c) 0 0 0 0
- d) Run time exception

View Answer

Answer: b

Explanation: None.

Output :

```
1 2 1 2
```

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         double x = 4.772;
```



```
6.         double y = 4.76;
7.         double z = Math.Max(x, y);
8.         Console.WriteLine(z);
9.         Console.ReadLine();
10.    }
11. }
```

- a) Run time error
 - b) 64
 - c) Compile time error
 - d) 81
- View Answer

Answer: b

Explanation: None.

Output :

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64

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         double x = 4.772;
6.         double y = 4.76;
7.         double z = Math.Max(x, y);
8.         Console.WriteLine(z);
9.         Console.ReadLine();
10.    }
11. }
```

- a) Compile time error
 - b) 3.14
 - c) 3
 - d) 4
- View Answer

Answer: c

Explanation: None.

Output :

3

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         double x = 4.772;
6.         double y = 4.76;
7.         double z = Math.Max(x, y);
8.         Console.WriteLine(z);
9.         Console.ReadLine();
10.    }
11. }
```

- a) 25
- b) 625
- c) Compile time error
- d) Run time error

View Answer

Answer: b

Explanation: $y = 25$, $z = 25 * 25 = 625$

Output :

625

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         double x = 4.772;
6.         double y = 4.76;
7.         double z = Math.Max(x, y);
8.         Console.WriteLine(z);
9.         Console.ReadLine();
10.    }
11. }
```

- a) Run time error
- b) 3
- c) 5
- d) Compile time error

View Answer

Answer: b

Explanation: Built in method of maths class Avg() is used

Output :

3

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         double x = 4.772;
6.         double y = 4.76;
7.         double z = Math.Max(x, y);
8.         Console.WriteLine(z);
9.         Console.ReadLine();
10.    }
11. }
```

- a) 4
- b) Compile time error
- c) 16
- d) 89

View Answer

Answer: c

Explanation: Built in method of maths class, Max() is used to select maximum value among 4 and 2 and then y is squared using Pow() of math class and the value is stored in z.

Output :

16

C# Questions & Answers – Rounding Functions

1. Which among the given classes provides types of rounding functions?

- a) Math
 - b) Process
 - c) System
 - d) Object
- View Answer

Answer: a

Explanation: None.

2. Which of these methods is a rounding function of Math class?

- a) Max()
 - b) Min()
 - c) Abs()
 - d) Round()
- View Answer

Answer: d

Explanation: Round() rounds up a variable to nearest integer

3. Which of these classes contains only floating point functions?

- a) Math
 - b) Process
 - c) System
 - d) Object
- View Answer

Answer: a

Explanation: Math class contains all the floating point functions that are used for general purpose mathematics methods. Example : sin(), cos(), exp(), sqrt() etc.

4. Which of these method returns a smallest whole number greater than or equal to variable X?

- a) double Ciel(double X)
 - b) double Floor(double X)
 - c) double Max(double X)
 - d) double Min(double X)
- View Answer

Answer: a

Explanation: Ciel(double X) returns the smallest whole number greater than or equal to variable X.

5. Which of these methods return a largest whole number less than or equal to variable X?

- a) double Ciel(double X)
 - b) double Floor(double X)
 - c) double Max(double X)
 - d) double Min(double X)
- View Answer

Answer: b

Explanation: double Floor(double X) returns a largest whole number less than or equal to variable X.

6. Which of the following functions return absolute value of a variable?

- a) Abs()

b) Absolute()
c) absolutevariable()
d) None of the mentioned
View Answer

Answer: a

Explanation: Abs() returns the absolute value of a variable

a) 1 2 0 0
b) 1 2 1 2
c) 0 0 0 0
d) Run time exception
View Answer

Answer: b

Explanation: None.

Output:

1 2 1 2

a) 0
b) 3
c) 3.0
d) 3.1
View Answer

Answer: b

Explanation: None.

Output:

3

a) 0
b) 3
c) 3.0
d) 4
View Answer

Answer: d

Explanation: Ceiling(double x) returns the smallest whole number greater than or equal to variable x.

Output:

4

a) 0
b) 3
c) 3.0
d) 4
View Answer

Answer: b

Explanation: double Floor(double X) returns the largest whole number less than or equal to variable X. Here, the smallest whole number less than 3.14 is 3.

Output:

3

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C# Questions & Answers – Multithreaded Programming – 1

1. Select the type of multitasking methods that exist:

- a) process based
- b) thread based
- c) only process
- d) both process & thread based

View Answer

Answer: d

Explanation: There are two distinct types of multitasking: process-based and thread-based.

2. Choose the correct statement about process-based multitasking:

- a) A feature that allows our computer to run two or more programs concurrently
- b) A program that acts as a small unit of code that can be dispatched by the scheduler
- c) Only A program that acts as a small unit of code that can be dispatched by the scheduler
- d) Both A feature that allows our computer to run two or more programs concurrently & A program that acts as a small unit of code that can be dispatched by the scheduler

View Answer

Answer: d

Explanation: The process-based multitasking is the feature that allows your computer to run two or more programs concurrently. For example, process-based multitasking allows you to run a word processor at the same time you are using a spreadsheet or browsing the Internet. In process-based multitasking, a program is the smallest unit of code that can be dispatched by the scheduler.

3. Choose the statements which indicate the differences between the thread based multitasking and process based multitasking:

- a) Process-based multitasking handles the concurrent execution of programs
- b) Process-based multitasking handles the concurrent execution of pieces of the same program
- c) Thread-based multitasking handles the concurrent execution of programs
- d) Thread-based multitasking deals with the concurrent execution of pieces of the same program

View Answer

Answer: a

Explanation: The differences between process-based and thread-based multitasking can be summarized like this: Process-based multitasking handles the concurrent execution of programs. Thread-based multitasking deals with the concurrent execution of pieces of the same program.

4. What is the advantage of the multithreading program?

- a) Enables to utilize the idle and executing time present in most programs
- b) Enables to utilize the idle time present in most programs
- c) Both Enables to utilize the idle and executing time present in most programs & Enables to utilize the idle time present in most programs
- d) Only Enables to utilize the idle time present in most programs

View Answer

Answer: d

Explanation: The principal advantage of multithreading is that it enables us to write very efficient programs because it lets us utilize the idle time that is present in most programs.

5. Select the two type of threads mentioned in the concept of multithreading:

- a) foreground
- b) background
- c) only foreground
- d) both foreground & background

View Answer

Answer: d

Explanation: None.

6. Number of threads that exists for each of the processes that occurs in the program:

- a) at most 1
- b) atleast 1
- c) only 1
- d) both at most 1 & atleast 1

View Answer

Answer: d

Explanation: All processes have at least one thread for execution, which is usually called the main thread because it is the primary thread that is executed when our program begins. From the main thread, we can create other threads.

7. Choose the namespace which supports multithreading programming:

- a) System.net
- b) System.Linq
- c) System.Threading
- d) All of the mentioned

View Answer

Answer: c

Explanation: The classes that support multithreaded programming are defined in the System.Threading namespace. Thus, you will usually include this statement at the start of any multithreaded program.

- a) Defines a thread
- b) Declaration of a thread constructor
- c) Only Defines a thread
- d) Only Defines a thread & Declaration of a thread constructor

View Answer

Answer: d

Explanation: To create a thread, instantiate an object of type Thread, which is a class defined in System.Threading. The simplest Thread constructor is shown here:

```
public Thread(ThreadStart start)
```

Here, start specifies the method that will be called to begin execution of the thread. In other words, it specifies the thread's entry point.

9. Which of these classes is used to make a thread?

- a) String
- b) System
- c) Thread
- d) Runnable

View Answer

Answer: c

Explanation: The multithreading system is built upon the Thread class, which encapsulates a thread of execution. The Thread class is sealed, which means that it cannot be inherited. Thread defines several methods and properties that help manage threads.

10. On call of which type of method the new created thread will not start executing?

- a) Begin()
- b) Start()
- c) New()
- d) All of the mentioned

View Answer

Answer: b

Explanation: Once created, the new thread will not start running until you call its Start() method, which is defined by Thread.

11. Which of these method of Thread class is used to Suspend a thread for a period of time?

- a) sleep()
- b) terminate()
- c) suspend()
- d) stop()

View Answer

Answer: a

Explanation: None.

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C# Questions & Answers – Multithreaded Programming – 2

1. Which of these keywords are used to implement synchronization?

- a) synchronize
- b) syn
- c) synch
- d) synchronized

View Answer

Answer: d

Explanation: None.

2. Which keyword is used for using the synchronization features defined by the Monitor class?

- a) lock
- b) synchronized
- c) monitor
- d) locked

View Answer

Answer: a

Explanation: The C# keyword lock is really just shorthand for using the synchronization features defined by the Monitor class, which is defined in the System.Threading namespace.

3. What is synchronization in reference to a thread?

- a) It's a process of handling situations when two or more threads need access to a shared resource
- b) It's a process by which many threads are able to access the same shared resource simultaneously
- c) It's a process by which a method is able to access many different threads simultaneously
- d) It's a method that allows too many threads to access any information they require

View Answer

Answer: a

Explanation: When two or more threads need to access the same shared resource, they need some way to ensure that the resource will be used by only one thread at a time, the process by which this is achieved is called synchronization.

4. Which method is called when a thread is blocked from running temporarily?

- a) Pulse()
- b) PulseAll()
- c) Wait()
- d) Both Pulse() & Wait()

View Answer

Answer: c

Explanation: When a thread is temporarily blocked from running, it calls Wait(). This causes the thread to go to sleep and the lock for that object to be released, allowing another thread to acquire the lock.

5. What kind of exception is being thrown if Wait(),Pulse() or PulseAll() is called from code that is not within synchronized code?

- a) System I/O Exception
- b) DivideByZero Exception
- c) SynchronizationLockException
- d) All of the mentioned

View Answer

Answer: c

Explanation: A SynchronizationLockException will be thrown if Wait(), Pulse(), or PulseAll() is called from code that is not within synchronized code, such as a lock block.

6. What is mutex?

- a) a mutually exclusive synchronization object
- b) can be acquired by more than one thread at a time
- c) helps in sharing of resource which can be used by one thread
- d) all of the mentioned

View Answer

Answer: a

Explanation: A mutex is a mutually exclusive synchronization object. This means it can be acquired by one and only one thread at a time. The mutex is designed for those situations in which a shared resource can be used by only one thread at a time.

7. What is Semaphore?

- a) Grant more than one thread access to a shared resource at the same time
- b) Useful when a collection of resources is being synchronized
- c) Make use of a counter to control access to a shared resource
- d) All of the mentioned

View Answer

Answer: d

Explanation: A semaphore is similar to a mutex except that it can grant more than one thread access to a shared resource at the same time. Thus, the semaphore is useful when a collection of resources is being synchronized. A semaphore controls access to a shared resource through the use of a counter. If the counter is greater than zero, then access is allowed. If it is zero, access is denied.

8. Which method is used to abort thread prior to its normal execution?

- a) sleep()
- b) terminate()
- c) suspend()
- d) Abort()

View Answer

Answer: d

Explanation: To terminate a thread prior to its normal conclusion, use Thread.Abort(). Its simplest form is shown here:

```
public void Abort()
```

Abort() causes a ThreadAbortException to be thrown to the thread on which Abort() is called. This exception causes the thread to terminate.

9. Which of these statements is incorrect?

- a) By multithreading CPU idle time is minimized, and we can take maximum use of it
- b) By multitasking CPU idle time is minimized, and we can take maximum use of it
- c) Two thread in Csharp can have same priority
- d) A thread can exist only in two states, running and blocked

View Answer

Answer: d

Explanation: Thread exist in several states, a thread can be running, suspended, blocked, terminated & ready to run.

10. What is multithreaded programming?

- a) It's a process in which two different processes run simultaneously
- b) It's a process in which two or more parts of same process run simultaneously
- c) It's a process in which many different process are able to access same information
- d) It's a process in which a single process can access information from many sources

View Answer

Answer: b

Explanation: Multithreaded programming a process in which two or more parts of same process run simultaneously.

C# Question & Answers – Iterators

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()  
2. {  
3.     foreach (char ch in chrs)  
4.         yield return ch;  
5. }
```

1. What is an iterator?

- a) a method
- b) an operator
- c) accessor
- d) all of the mentioned

View Answer

Answer: d

Explanation: An iterator is a method, operator, or accessor that returns the members of a set of objects, one member at a time, from start to finish.

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()  
2. {  
3.     foreach (char ch in chrs)  
4.         yield return ch;  
5. }
```

- a) Run time error
- b) Compile time error
- c) Code runs successfully prints nothing
- d) Code runs successfully prints A, B, C, D

View Answer

Answer: d

Explanation: None.

Output:

A, B, C, D

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()  
2. {  
3.     foreach (char ch in chrs)  
4.         yield return ch;  
5. }
```

- a) Definition of iterator for MyClass
- b) Implements the GetEnumerator() method defined by IEnumerable
- c) The yield return statement returns the next object in the collection, which in this case is the next character in chrs
- d) All of the mentioned

View Answer

Answer: d

Explanation: This is the definition of the iterator for MyClass. The code implicitly implements the GetEnumerator() method defined by IEnumerable. At the body of the method. It contains a foreach loop that returns the elements in chrs. It does this through the use of a yield return statement. The yield return statement returns the next object in the collection, which in this case is the next character in chrs.

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()
2. {
3.     foreach (char ch in chrs)
4.         yield return ch;
5. }
```

4. What does the yield return statement specify in above code snippet?

- a) returns the output
- b) returns the next object in the collection
- c) Both returns the output & returns the next object in the collection
- d) none of the mentioned

View Answer

Answer: b

Explanation: The yield return statement returns the next object in the collection, which in this case is the next character in chrs in above code.

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()
2. {
3.     foreach (char ch in chrs)
4.         yield return ch;
5. }
```

- a) ABCDEFGHIJKLMNOPQRSTUVWXYZ
- b) Run time error
- c) UTSRQPONMLKJIHGFEDCBA
- d) Compile successfully prints nothing

View Answer

Answer: c

Explanation: None.

Output:

```
U T S R Q P O N M L K J I H G F E D C B A
```

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()
```

```
2. {  
3.     foreach (char ch in chrs)  
4.         yield return ch;  
5. }
```

- a) Code run successfully prints nothing
 - b) A B C D E F G H I J K L M N O P Q R S T U V
 - c) U T S R Q P O N M L
 - d) Compile time error
- View Answer

Answer: c

Explanation: The code to specify stoppage of the iterator using 'yield break' statement. When this statement executes, the iterator signals that the end of the collection has been reached, which effectively stops the iterator.

Output:

U T S R Q P O N M L

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()  
2. {  
3.     foreach (char ch in chrs)  
4.         yield return ch;  
5. }
```

- a) prints nothing code run successfully
 - b) run time error
 - c) code runs successfully prints even number between 1 to 20
 - d) compile time error
- View Answer

Answer: c

Explanation: None.

Output:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()  
2. {  
3.     foreach (char ch in chrs)  
4.         yield return ch;  
5. }
```

- a) Iterate the first 7 letters:
A B C D E F G
Iterate letters from F to L:
G H I J K L
- b) Iterate the first 7 letters:

A B C D E F G

Iterate letters from F to L:

H I J K L

c) Run time error

d) Compile time error

View Answer

Answer: b

Explanation: None.

Output:

```
Iterate the first 7 letters:
A B C D E F G
Iterate letters from F to L:
H I J K L
```

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()
2. {
3.     foreach (char ch in chrs)
4.         yield return ch;
5. }
```

a) Compile time error

b) Run time error

c) 65 66 67 68 69 70

d) Code run successfully prints nothing

View Answer

Answer: c

Explanation: None.

Output:

```
65 66 67 68 69 70
```

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()
2. {
3.     foreach (char ch in chrs)
4.         yield return ch;
5. }
```

10. What are the advantages of the named iterator?

a) They allow to pass arguments to the iterator that control what elements are obtained

b) This form of iterators can be overloaded

c) Both They allow to pass arguments to the iterator that control what elements are obtained & This form of iterators can be overloaded

d) None of the mentioned

View Answer

Answer: c

Explanation: By definition.

C# Questions & Answers – Fundamentals of Namespaces

1. Which of the following is not a namespace in the .NET Framework Class Library?

- a) System.Process
- b) System.Security
- c) System.Threading
- d) System.xml

View Answer

Answer: a

Explanation: None.

2. Which is the correct statement about the namespaces in C#.NET?

- a) Nesting of namespaces is permitted, provided all the inner namespaces are declared in the same file
- b) A namespace cannot be tested
- c) There is no limit on the number of levels while nesting namespaces
- d) All of the mentioned

View Answer

Answer: c

Explanation: None.

3. Which among the following does not belong to the C#.NET namespace?

- a) class
- b) struct
- c) enum
- d) data

View Answer

Answer: d

Explanation: None.

4. Which among the following is a correct statement about namespace used in C#.NET?

- a) Classes must belong to a namespace, whereas structures need not
- b) All elements of the namespace must to belong to one file
- c) If not mentioned, a namespace takes the name of the current project
- d) All of the mentioned

View Answer

Answer: c

Explanation: None.

a) `College.Lib.Book b = new College.Lib.Book();`

`b.issue();`

b) `Book b = new Book();`

`b.issue();`

c) `using College.Lib;`

`Book b = new Book();`

`b.issue();`

d) All of the mentioned

View Answer

Answer: b

Explanation: None.

6. Which among the following statements are not correct about a namespace used in C#.NET?

- a) Nested namespaces are allowed
- b) Importing outer namespaces imports inner namespace
- c) Nested namespaces are allowed
- d) Importing outer namespace does not import inner namespace

View Answer

Answer: b

Explanation: None.

7. Which among the following is a .NET namespace?

- a) System.Web
- b) System.Process
- c) System.Drawing2D
- d) System.Drawing3D

View Answer

Answer: a

Explanation: None.

View Answer

Answer: c

Explanation: None.

9. If ListBox is the class of System.Windows.Forms namespace. Then, correct way to create an object of ListBox class is?

- a) using System.Windows.Forms;
ListBox I = new ListBox();
- b) System.Windows.Forms.ListBox I = new System.Windows.Forms.ListBox();
- c) using LBControl I = new System.Windows.Forms.ListBox;
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

10. Which among the following is the correct statement about the using statement used in C#.NET?

- a) A C#.NET source code file consists of any number of using statement
- b) By using 'using' statement it's possible to create an alias for the namespace but not for the namespace element
- c) It is permitted to define a member at namespace level using alias
- d) Using statement can be placed anywhere in the C#.NET source code file

View Answer

Answer: c

Explanation: None.

C# Questions & Answers – Fundamentals of Preprocessors

1. Choose the symbol which begins a preprocessor directive in C#.NET?

- a) #
- b) **
- c) *
- d) &

View Answer

Answer: a

Explanation:

#define, #elif, #else etc.

2. What is meant by preprocessor directive in C#.NET?

- a) a form of command which are interpreted by the compiler
- b) a form of macros like in c and c++ not exactly same to them , separately designed for C#.NET
- c) always begins with a '#' character occupies separate line of source of code
- d) all of the mentioned

View Answer

Answer: d

Explanation: Preprocessor directives are commands that are interpreted by the compiler and affect the output or behavior of the build process. The C# compiler does not have a separate preprocessor, like C and C++ we cannot use these directives to create macros. Preprocessing directives are top lines in our program that start with '#'. The '#' is followed by an identifier that is the directive name.

3. What is meant by preprocessor directive #define?

- a) defines a character sequence
- b) helps in determining existence and non existence of a symbol
- c) can be used to create function like macros as in C/C++
- d) all of the mentioned

View Answer

Answer: a

Explanation: The #define directive defines a character sequence called a symbol. The existence or nonexistence of a symbol can be determined by #if or #elif and is used to control compilation. #define which supports creation of function like macros in c/c++ does not support the same in C#.

4. Select the defined preprocessor in C#.NET?

- a) #define
- b) #elif
- c) #else
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

5. What does preprocessor directive #if and #endif explains?

- a) Enables compilation of sequence of code on condition basis
- b) Express results into true or false on evaluation of condition
- c) If expression following #if is true then code that is between #if and #endif is compiled otherwise skipped
- d) All of the mentioned

View Answer

Answer: d

Explanation: The #if and #endif directives enable conditional compilation of a sequence of code based upon whether an expression involving one or more symbols evaluates to true. A symbol is true if it has been defined. It is false otherwise. If the expression following #if is true, the code that is between it and #endif is compiled. Otherwise, the intervening code is skipped. The #endif directive marks the end of an #if block.

- a) i
 - pi not define
 - b) pi not define
 - ok
 - c) i
 - ok
 - d) ok
- View Answer

Answer: b

Explanation: The defined symbol 'pi' when compared as per 'if' condition, hence the outcome is false which results in skip of statement and hence executes statement after #else and finally the end statement after #endif.

Output: pi not define
ok

- a) DEBUG is defined
 - MYTEST is defined
 - b) MYTEST is defined
 - DEBUG and MYTEST are defined
 - c) DEBUG and MYTEST are not defined
 - MYTEST is defined
 - d) DEBUG and MYTEST are defined
- View Answer

Answer: d

Explanation: None.

- a) DEBUG is defined
 - DEBUG and MYTEST are not defined
 - b) DEBUG and MYTEST are not defined
 - c) MYTEST is defined
 - DEBUG and MYTEST are not defined
 - d) DEBUG is defined
- View Answer

Answer: b

Explanation: #undef lets to undefine a symbol such that by using the symbol as the expression in a #if directive, the expression will evaluate to false i.e the symbol will be undefined in nature.

Output: DEBUG and MYTEST are not defined

9. Which preprocessor directive among the following forces the compiler to stop the compilation?

- a) #warning
 - b) #endregion
 - c) #undef
 - d) #error
- View Answer

Answer: d

Explanation: The #error directive forces the compiler to stop compilation. It is used for debugging. The general form of the #error directive is #error error-message. When the #error directive is encountered, the error message is displayed.

10. Which among the following is not a preprocessor directive?

- a) #ifdef
- b) #pragma
- c) #Or
- d) #undef

View Answer

Answer: c

Explanation: None.

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C# Questions & Answers – Method with Parameters

1. Which of these data types can be used for a method having a return statement in it?

- a) void
- b) int
- c) float
- d) all of the mentioned

View Answer

Answer: d

Explanation: None.

2. What is the process of defining more than one method in a class differentiated by parameters known as?

- a) Function overriding
- b) Function overloading
- c) Function doubling
- d) None of the mentioned

View Answer

Answer: b

Explanation: Function overloading is a process of defining more than one method in a class with same name differentiated by function signature i.e return type or parameters type and number. Example – `int volume(int length, int width)` & `int volume(int length, int width, int height)` can be used to calculate volume.

3. Which of these methods is executed first before execution of any other thing that takes place in a program?

- a) main method
- b) finalize method
- c) static method
- d) private method

View Answer

Answer: c

Explanation: If a static method is present in the program then it will be executed first, then main will be executed.

4. Which of these can be used to differentiate two or more methods having same name?

- a) Parameters data type
- b) Number of parameters
- c) Return type of method
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

5. Which of these data types can be used for a method having a return statement in it?

- a) void
- b) int
- c) float
- d) all of the mentioned

View Answer

Answer: d

Explanation: None.

a) 0

b) 1

c) 6

d) 25

View Answer

Answer: c

Explanation: None.

Output :

6

a) false

b) true

c) 0

d) 1

View Answer

Answer: b

Explanation: None.

Output :

true

a) false

b) true

c) 0

d) 1

View Answer

Answer: b

Explanation: None.

Output :

true

a) 0

b) 5

c) 25

d) 26

View Answer

Answer: b

Explanation: None.

Output :

5

a) 1

b) 2

c) Run time error

d) Compile time error

View Answer

Answer: b

Explanation: Both conditions for if statements are failed and hence statement after else is executed.

Output :

2

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C# Questions & Answers – Fundamental of Networking

1. Which namespace is mostly preferred for the operation of networking in C#?

- a) System.Web
- b) System.in
- c) System.Net.Mail
- d) All of the mentioned

View Answer

Answer: c

Explanation: Networking support is contained in several namespaces defined by the .NET Framework. The primary namespace for networking is System.Net. It defines a large number of high-level, easy-to-use classes that support various types of operations common to the Internet. Several namespaces nested under System.Net are also provided. Example :System.Net.Mail.

2. Which of the following are the classes defined by the namespace System.Net:

- a) Cookie
- b) CookieContainer
- c) FileWebRequest
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

3. Which of the following are the interfaces defined by the namespace System.Net:

- a) IAuthenticationModule
- b) HttpWebRequest
- c) WebProxy
- d) HttpResponseHeader

View Answer

Answer: a

Explanation: c and d are namespaces and enumerations.

4. Which of the following are the classes that support the standard HTTP protocol

- a) HttpWebRequest
- b) HttpResponseHeader
- c) HttpRequestHeader
- d) HttpStatusCode

View Answer

Answer: a

Explanation: The derived classes that support the standard HTTP protocol are HttpWebRequest and HttpWebResponse.

5. Which of the following class/classes supports the task of uploading and downloading the file:

- a) WebRequest
- b) WebResponse
- c) WebClient
- d) All of the mentioned

View Answer

Answer: c

Explanation: If we only need to upload or download a file, then WebClient is often the best way to accomplish it.

6. How many ports of TCP/IP are reserved for specific protocols?

- a) 10
- b) 1024
- c) 2048
- d) 512

[View Answer](#)

Answer: b

Explanation: None.

7. How many bits are present in a single IP address?

- a) 8
- b) 16
- c) 32
- d) 64

[View Answer](#)

Answer: c

Explanation: None.

8. Which of the following is the full form of DNS?

- a) Data Network Service
- b) Data Name Service
- c) Domain Network Service
- d) Domain Name Service

[View Answer](#)

Answer: d

Explanation: None.

9. Which of the following classes is used to encapsulate IP address and DNS?

- a) DatagramPacket
- b) URL
- c) InetAddress
- d) ContentHandler

[View Answer](#)

Answer: c

Explanation: InetAddress class encapsulates both IP address and DNS. We can interact with this class by using the name of an IP host.

10. Which of the following are the protocols defined by .NET runtime:

- a) HTTP
- b) HTTPS
- c) File
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: The .NET runtime defines HTTP, HTTPS, file, and FTP protocols. Thus, if we specify a URI that uses HTTP prefix, we will automatically receive the HTTP-compatible class that supports it. If we specify a URI that uses FTP prefix, we will automatically receive the FTP-compatible class that supports it.

C# Questions & Answers – Uri Class

3. What does the following form define?

`Protocol://HostName/FilePath?Query`

1. What does URL stand for?
- a) Uniform Resource Locator
 - b) Uniform Resource Latch
 - c) Universal Resource Locator
 - d) Universal Resource Latch
- View Answer

Answer: a

Explanation: None.

3. What does the following form define?

`Protocol://HostName/FilePath?Query`

2. Which of these exceptions is thrown by the URL class's constructors?
- a) URLNotFound
 - b) URLSourceNotFound
 - c) MalformedURLException
 - d) URLNotFoundException
- View Answer

Answer: c

Explanation: None.

3. What does the following form define?

`Protocol://HostName/FilePath?Query`

- a) Protocol specifies the protocol being used, such as HTTP
 - b) HostName identifies a specific server, such as mhpprofessional.com or www.google.com
 - c) FilePath specifies the path to a specific file
 - d) All of the mentioned
- View Answer

Answer: d

Explanation: By definition.

3. What does the following form define?

`Protocol://HostName/FilePath?Query`

4. Which of these classes is used to encapsulate IP address and DNS?
- a) DatagramPacket
 - b) URL
 - c) InetAddress
 - d) ContentHandler
- View Answer

Answer: c

Explanation: InetAddress class encapsulates both IP address and DNS, we can interact with this class by using the name of an IP host.

3. What does the following form define?

Protocol://HostName/FilePath?Query

5. Which of these is a standard for communicating multimedia content over email?

- a) http
- b) https
- c) Mime
- d) httpd

View Answer

Answer: c

Explanation: MIME is an internet standard for communicating multimedia content over email. The HTTP protocol uses and extends the notion of MIME headers to pass attribute pairs between HTTP client and server.

3. What does the following form define?

Protocol://HostName/FilePath?Query

- a) Creates a WebRequest object for the URI specified by the string passed by requestUriString
- b) The object returned will implement the protocol specified by the prefix of the URI
- c) The object will be an instance of the class that inherits WebRequest
- d) All of the mentioned

View Answer

Answer: d

Explanation: Creates a WebRequest object for the URI specified by the string passed by requestUriString. The object returned will implement the protocol specified by the prefix of the URI. Thus, the object will be an instance of a class that inherits WebRequest. A NotSupportedException is thrown if the requested protocol is not available. A UriFormatException is thrown if the URI format is invalid.

3. What does the following form define?

Protocol://HostName/FilePath?Query

- a) html
- b) text
- c) html/text
- d) text/html

View Answer

Answer: d

Explanation: The following program obtains the hypertext contained at a specific website. The program displays the hypertext on the screen.

3. What does the following form define?

Protocol://HostName/FilePath?Query

- a) sanfoundry
- b) sanfoundry.com
- c) www.sanfoundry.com
- d) https://www.sanfoundry.com/csharpmcq

View Answer

Answer: d

Explanation: AbsoluteUri is used to know the full URL of an URL object.

Output:

<https://www.sanfoundry.com/csharpmcq>

3. What does the following form define?

Protocol://HostName/FilePath?Query

9. Which of these data members of `HttpResponse` class is used to store the response from a http server?

- a) status
- b) address
- c) statusResponse
- d) statusCode

View Answer

Answer: d

Explanation: When we send a request to http server it responds with a status code. This status code is stored in `statusCode` and the textual equivalent is stored in `reasonPhrase`.

3. What does the following form define?

Protocol://HostName/FilePath?Query

10. Which of these classes is used to access actual bits or content information of a URL?

- a) URL
- b) `URLDecoder`
- c) `URLConnection`
- d) All of the mentioned

View Answer

Answer: d

Explanation: `URL`, `URLDecoder` and `URLConnection` – all these are used to access information stored in the URL.

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C# Questions & Answers – Network Errors Handling

1. What exception is thrown if the URI format is invalid?

- a) URLNotFound
- b) URLSourceNotFound
- c) MalformedURLException
- d) UriFormatException

View Answer

Answer: d

Explanation: None.

2. What exception is thrown if the protocol supported by URI prefix is invalid?

- a) URLNotFound
- b) URLSourceNotFound
- c) UriFormatException
- d) NotSupportedException

View Answer

Answer :d

Explanation: None.

3. What exception is thrown if the user does not have a proper authorization?

- a) URLNotFound
- b) URLSourceNotFound
- c) System.Security.SecurityException
- d) All of the mentioned

View Answer

Answer: c

Explanation: None.

4. Choose the exceptions generated by the Create() method defined by WebRequest:

- a) NotSupportedException
- b) UriFormatException
- c) System.Security.SecurityException
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

5. Choose the exceptions generated by the GetReponse() method defined by WebRequest:

- a) InvalidOperationException
- b) ProtocolViolationException
- c) WebException
- d) All of the mentioned

View Answer

Answer: d

Explanation: By definition.

6. Select the properties related to the network errors generated by WebException:

- a) response
- b) get

- c) set
- d) none of the mentioned

View Answer

Answer: a

Explanation: WebException has two properties that relate to network errors: Response and Status. We can obtain a reference to the WebResponse object inside an exception handler through the Response property. For the HTTP protocol, this object describes the error. It is defined like this:

```
public WebResponse Response { get; }
```

When an error occurs, we can use the Status property of WebException to find out what went wrong. It is defined like this:

```
public WebExceptionStatus Status {get; }
```

7. Which of these classes is used for operating on the request from the client to the server?

- a) http
- b) httpDecoder
- c) httpConnection
- d) httpd

View Answer

Answer: d

Explanation: None.

8. Choose the exceptions generated by the GetResponseStream() method defined by WebRequest:

- a) ProtocolViolationException
- b) ObjectDisposedException
- c) IOException
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

9. Which of these classes is used to create servers that listen to either local or remote client programs?

- a) httpServer
- b) ServerSockets
- c) MimeHeader
- d) HttpResponse

View Answer

Answer: b

Explanation: None.

10. Which of these methods gives the full URL of an URL object?

- a) fullHost()
- b) getHost()
- c) AbsoluteUri
- d) toExternalForm()

View Answer

Answer: c

Explanation: None.

C# Questions & Answers – Type Interface

1. Why are generics used?

- a) Generics make code more fast
- b) Generics make code more optimised and readable
- c) Generics add stability to your code by making more of your bugs detectable at compile time
- d) Generics add stability to your code by making more of your bugs detectable at run time

View Answer

Answer: c

Explanation: Generics add stability to your code by making more of your bugs detectable at compile time.

2. Which of these type parameters is used for generic methods to return and accept any type of object?

- a) K
- b) N
- c) T
- d) V

View Answer

Answer: c

Explanation: T is used for type, A type variable can be any non-primitive type you specify: any class type, any interface type, any array type, or even another type variable.

3. Which of these is an correct way of defining generic method?

- a) `name(T1, T2, ..., Tn) { /* ... */ }`
- b) `public name { /* ... */ }`
- c) `class name[T1, T2, ..., Tn] { /* ... */ }`
- d) `name{T1, T2, ..., Tn} { /* ... */ }`

View Answer

Answer: b

Explanation: The syntax for a generic method includes a type parameter, inside angle brackets, and appears before the method's return type. For static generic methods, the type parameter section must appear before the method's return type.

- a) Compile time error
- b) Csharp
- c) 0
- d) Run time error

View Answer

Answer: b

Output :

Csharp

- a) 0
- b) 30
- c) Runtime Error
- d) Compile time Error

View Answer

Answer: b

Output : 30

- a) Generics class declaration

- b) Declaration of variable
- c) A simple class declaration
- d) Both Generics class declaration & Declaration of variable

View Answer

Answer: d

Explanation: class Gen This defines the generics declaration where 'T' is the name of type parameter. This parameter is used as a placeholder for the actual type that will be specified when a Gen object is created. Gen is a generic class. T is used to declare a variable called 'ob'.

-
- a) C++
 - b) 20
 - c) C++
 - d) 0

View Answer

Answer: c

Output :

```
C++
20
```

8. Select the type argument of open constructed type?

- a) Gen<int>
- b) Gen<T>
- c) Gen<>
- d) None of the mentioned

View Answer

Answer: c

Explanation: A generic type, such as Gen, is an abstraction. In C# terminology, a construct such as Gen is called an open constructed type, because the type parameter T (rather than an actual type, such as int) is specified.

-
- d) all of the mentioned

View Answer

Answer: b

Explanation: None.

-
- a) Generics class declaration
 - b) Declaration of variable
 - c) Generic constructor declaration
 - d) All of the mentioned

View Answer

Answer: c

Explanation: None.

C# Questions & Answers – Unsafe code & Pointers Basics

1. Fill up the blank :

Pointer variable is used to hold the _____ of the variable

- a) Value
- b) Address
- c) Value and Address
- d) Name of the variable

View Answer

Answer: b

Explanation: By definition.

2. Which among the given operators is referred to as 'address of' operator?

- a) *
- b) ^
- c) &
- d) ~

View Answer

Answer: c

Explanation: The '&' is a unary operator that returns the memory address of its operand.

For example,

```
int* ip;
int num = 10;
ip = &num;
```

puts into ip the memory address of the variable num. This address is the location of the variable in the computer's internal memory.

3. Choose the correct statement among the given statements?

- a) Use of return statement is necessary in every function
- b) Return statement may not be followed by a parenthesis
- c) A program may contain more than one return statement
- d) Return statement may not return a value

View Answer

Answer: a

Explanation: None.

4. What is the size of a char pointer?

- a) 1 byte
- b) 2 byte
- c) 3 byte
- d) 4 byte

View Answer

Answer: b

Explanation: class UnsafeCode

```
{
unsafe static void Main()
{
char ch;
Console.WriteLine(sizeof(char));
Console.ReadLine();
}
```

```
}
```

The sizeof() method helps in calculating size of char pointer .

5. After incrementing a float pointer ptr by 1 it would be incremented by _____

- a) 1 byte
- b) 2 bytes
- c) 3 bytes
- d) 4 bytes

View Answer

Answer: d

Explanation: None.

6. Which of the following job is done by the instruction ++*p for an integer pointer p?

- a) increment value contained at address p
- b) increment address contained in p
- c) Both increment value contained at address p and increment address contained in p
- d) neither increment value contained at address p nor increment address contained in p

View Answer

Answer: a

Explanation: class UnsafeCode

```
{  
unsafe static void Main()  
{  
int n = 10;  
int* p = &n;  
Console.WriteLine(*p);  
}  
}
```

Output :

10 + 1 = 11.

- a) 6
- b) print garbage value
- c) print -6
- d) print address of b + a

View Answer

Answer: a

Explanation: The (*) operator prints the value stored at address (&) of 'a'.

Output :

4 + 2 = 6

- a) The program will print 10
- b) Run time error
- c) Compile time error
- d) Output is the address contained in p

View Answer

Answer: c

Explanation: The program will result in compile time error because void pointer cannot point anywhere.

9. Which among the following is referred as an array of pointers?

- a) int *p;

b) int (*)p;
c) int p[4];
d) int*[4] p;
View Answer

Answer: d
Explanation: None.

10. Among the given pointer which of following cannot be incremented?

a) int
b) char
c) float
d) void
View Answer

Answer: d
Explanation: None.

11. How many values can be returned from a function simultaneously using pointers?

a) 1
b) 2
c) 3
d) as many as user wants
View Answer

Answer: d
Explanation: None.

12. Consider an integer pointer . *a.++*a will increment _____ while *a++ will increment _____

a) value at a, address contained in a
b) value at a,value at a
c) address contained in a, address contained in a
d) address contained in a, value at a
View Answer

Answer: a
Explanation: None.

a) program will print garbage value
b) program will print address of a
c) program will print value of a1
d) program will print address of a1
View Answer

Answer: c
Explanation: The address of variable a1 is stored in variable b1 by making a1 as a pointer to variable b1 .Later, variable b1 address is stored in pointer a and hence using pointer operation value of a1 is displayed in a.
Output : 10

a) compile time error
b) garbage value is printed
c) program will print 1000
d) program will print 100
View Answer

Answer: c
Explanation: None.

Output :1000

- a) compile time error
- b) garbage value
- c) program prints value at address 65535
- d) program prints 65535

View Answer

Answer: d

Explanation: None.

Output :

65535

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C# Questions & Answers – Pointers Operation – 1

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);
14.        }
15.        Console.ReadLine();
16.    }
17. }
```

- a) 20 200
- b) 40 200
- c) 800 40
- d) 40 800

View Answer

Answer: c

Explanation: None.

Output: 800 40

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
```

```
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);
14.        }
15.        Console.ReadLine();
16.    }
17. }
```

- a) 5 10
- b) 10 20
- c) Compile time error
- d) 5 10 20

View Answer

Answer: d

Explanation: None.

Output: 5 10 20

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);
14.        }
15.        Console.ReadLine();
16.    }
17. }
```

- a) 20, 10, 7
- b) 13, 10, 7
- c) 6, 9, 3
- d) Compile time error

View Answer

Answer: b

Explanation: None.

Output: 13, 10, 7

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);
14.        }
15.        Console.ReadLine();
16.    }
17. }
```

4. Among the given pointers which of following cannot be incremented?

- a) int
- b) char
- c) float
- d) void

View Answer

Answer: d

Explanation: None.

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
```

```

4.      {
5.          int* ptrs = stackalloc int[3];
6.          ptrs[0] = 1;
7.          ptrs[1] = 2;
8.          ptrs[2] = 3;
9.          for (int i = 2; i >= 0; --i)
10.         {
11.             ptrs[i] = ptrs[i]* 3;
12.             ptrs[i] = ptrs[i] + 4;
13.             Console.WriteLine(ptrs[i]);
14.         }
15.         Console.ReadLine();
16.     }
17. }

```

5. A structure pointer points to _____

- a) first member of structure
- b) first two members of structure
- c) whole structure
- d) only to the last member of structure

View Answer

Answer: c

Explanation: None.

3. What will be the output of the code snippet?

```

1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);

```



```
14.      }
15.      Console.ReadLine();
16.  }
17. }
```

6. What will be the declaration of the variable ptr as the pointer to array of 6 floats?

- a) float *ptr[6].
- b) float [6]*ptr
- c) float(*ptr)[6].
- d) float(*ptr)(6).

View Answer

Answer: c

Explanation: None.

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);
14.        }
15.        Console.ReadLine();
16.    }
17. }
```

- a) ACCEE
- b) FBCDE
- c) BBDDF
- d) BBCEE

View Answer

Answer: b

Explanation: None.

Output:FBCDE

3. What will be the output of the code snippet?

```

1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);
14.        }
15.        Console.ReadLine();
16.    }
17. }

```

- a) p[10] :0, p[9] :9, p[8] :8.....p[1]:1
- b) p[10] : 1, p[9] :2, p[8] :3.....p[1] :0
- c) p[1] : 1, p[2] :2, p[3] :3.....p[10] :0
- d) Compile time error

View Answer

Answer: a

Explanation: None.

Output:Index pointer like array:

p[10] :0, p[9] :9, p[8] :8...p[1]:1

3. What will be the output of the code snippet?

```

1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)

```

```

10.      {
11.          ptrs[i] = ptrs[i]* 3;
12.          ptrs[i] = ptrs[i] + 4;
13.          Console.WriteLine(ptrs[i]);
14.      }
15.      Console.ReadLine();
16.  }
17. }

```

- a) test a is this
- b) compile time error
- c) tset a si siht
- d) run time error

View Answer

Answer: c

Explanation: Reversal of string using pointers.

Output:tset a si siht

3. What will be the output of the code snippet?

```

1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);
14.        }
15.        Console.ReadLine();
16.    }
17. }

```

- a) 65 False
- b) 65 1
- c) A True
- d) A 1

View Answer

Answer: c

Explanation: Convert.ToChar(*p) = A

Convert.ToBoolean(1) = True

Output: A

True

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C# Question & Answers – Pointers Operation – 2

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

- a) Compile time error
- b) Run time error
- c) 200
- d) 30

View Answer

Answer: c

Explanation: A pointer can point to an object of a structure type as long as the structure does not contain reference types. When we access a member of a structure through a pointer, we must use the arrow operator, which is \rightarrow , rather than the dot (.) operator.

Output : 200

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

12. }

13. }

- a) Compile time error
- b) 120
- c) Run time error
- d) 4

View Answer

Answer: b

Explanation: None.

Output :

120

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.             Console.ReadLine();
11.         }
12.     }
13. }
```

- a) Run time error
- b) Compile time error
- c) p and p2 point to the same address
- d) Only b

View Answer

Answer: c

Explanation: None.

Output:

p and p2 point to same address

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
```

```
4.      {
5.          int[] nums = new int[10];
6.          fixed (int* p = &nums[0], p2 = nums)
7.          {
8.              if (p == p2)
9.                  Console.WriteLine("p and p2 point to same address.");
10.             Console.ReadLine();
11.         }
12.     }
13. }
```

- a) Run time error
 - b) 0
 - c) Result has no value
 - d) Compile time error
- View Answer

Answer: c

Explanation: A nullable object can be used in expressions that are valid for its underlying type. When non-nullable and nullable types are mixed in an operation, the outcome is a nullable value.

Output:

result has no value

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

- a) Run time error
- b) 110
- c) Result has no value
- d) Compile time error

View Answer

Answer: b

Explanation: None.

Output: result has this value :

advertisement

110

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

6. Choose the statement which defines the Nullable type Correctly:

- a) A special version of a value type that is represented by a structure
- b) A nullable type can also store the value null
- c) Nullable types are objects of System.Nullable, where T must be a non nullable value type
- d) All of the mentioned

View Answer

Answer: d

Explanation: A nullable type is a special version of the value type that is represented by a structure. In addition to the values defined by the underlying type, a nullable type can also store the value null. Thus, a nullable type has the same range and characteristics as its underlying type. It simply adds the ability to represent a value which indicates that a variable of that type is unassigned. Nullable types are objects of System.Nullable, where T must be a nonnullable value type.

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
```



```

7.      {
8.          if (p == p2)
9.              Console.WriteLine("p and p2 point to same address.");
10.         Console.ReadLine();
11.     }
12. }
13. }

```

7. What does the following code depicts?

1. System.Nullable count;
2. bool? done;
- a) Code 1 declares the objects of nullable of type Nullable defined in the System namespace
- b) Code 2 declares a nullable type in much shorter and in more commonly used way using ‘?’
- c) Both Code 1 declares the objects of nullable of type Nullable defined in the System namespace & Code 2 declares a nullable type in much shorter and in more commonly used way using ‘?’
- d) None of the mentioned

View Answer

Answer: c

Explanation: None.

3. What will be the output of given code snippet?

```

1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }

```

8. Which operator is commonly used to find the size of the type of C#?

- a) size()
- b) sizeof(type)
- c) both size() & sizeof(type)
- d) none of the mentioned

View Answer

Answer: b

Explanation: None.

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

- a) Run time error
- b) 80
- c) 96
- d) Compile time error

[View Answer](#)

Answer: c

Explanation: The purpose of a fixed-size buffer is to allow the creation of a struct in which the array of elements that make up the buffer are contained within the struct. By using a fixed-size buffer, we let the entire array to be contained within the struct. The overall size of FixedBankRecord is 96, which is the sum of its members.

Output :

96

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

11. }

12. }

13. }

- a) 3 2 1
- b) 1 2 3
- c) None of the mentioned
- d) Run time error

View Answer

Answer: a

Explanation: Allocates memory from the stack by using stackalloc. Here, ptrs is a pointer that receives the address of the memory that is large enough to hold size of number of objects of type 'int'. Here, type 'int' is a non reference type. Finally, stackalloc can be used only in an unsafe context.

Output :

3 2 1

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C# Questions & Answers – Accessor controls of class

1. Which among these access specifiers should be used for main() method?

- a) private
- b) public
- c) protected
- d) none of the mentioned

View Answer

Answer: b

Explanation: main() method must be specified public as it called by Csharp run time system outside of the program, by default main is private in nature if no access specifier is used.

2. Which of these is used as default for a member of a class if no access specifier is used for it?

- a) private
- b) public
- c) protected internal
- d) protected

View Answer

Answer: a

Explanation: None.

3. What is the process by which we can control what parts of a program can access the members of a class?

- a) Polymorphism
- b) Abstraction
- c) Encapsulation
- d) Recursion

View Answer

Answer: c

Explanation: None.

4. Which of these base class are accessible to the derived class members?

- a) static
- b) protected
- c) private
- d) shared

View Answer

Answer: b

Explanation: None.

- a) 3 3
- b) 2 3
- c) Run time error
- d) Compile time error

View Answer

Answer: d

Explanation: 'y' is defined privately which cannot be accessed outside its scope.

- a) 2 3
- b) 3 3
- c) Run time error

d) Compile time error

View Answer

Answer: b

Explanation: None.

a) 6, 9

b) 5, 9

c) 9, 10

d) 3, 2

View Answer

Answer: b

Explanation: Here, $a = 2$, $a + 1 = 2 + 1 = 3$.

So, $a = 2$, $b = 3$.

$x = 2 + 3 = 5$.

$y = 5 + 3 = 8$.

Similarly, $a = 5$, $b = a + 1 = 4$.

$y = 5 + 4 = 9$.

Output :

5, 9.

a) 7 7

b) 6 6

c) 7 9

d) 9 7

View Answer

Answer: c

Explanation: None.

Output :

advertisement

7, 9

9. Which of these access specifiers must be used for class so that it can be inherited by another subclass?

a) public

b) private

c) both public & private

d) none of the mentioned

View Answer

Answer: a

Explanation: None.

10. Which of the following statements are incorrect?

a) public members of class can be accessed by any code in the program

b) private members of class can only be accessed by other members of the class

c) private members of class can be inherited by a subclass, and become protected members in subclass

d) protected members of a class can be inherited by a subclass, and become private members of the subclass

View Answer

Answer: c

Explanation: private members of a class cannot be inherited by a subclass.

- a) 20, 40
- b) 40, 20
- c) 20, 10
- d) 10, 20

View Answer

Answer: c

Explanation: None.

Output :

20, 10

12. Accessibility modifiers defined in a class are?

- a) public, private, protected
- b) public, internal, protected internal
- c) public, private, internal, protected internal
- d) public, private, protected, internal, protected internal

View Answer

Answer: d

Explanation: None.

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C# Questions & Answers – Introduction of String Formatting

1. What are strings in C#?

- a) a sequence of characters
- b) array of characters
- c) objects of built-in data type
- d) a reference type

View Answer

Answer: c

Explanation: Generally, a string is defined as a sequence of characters but it is different in C#. In c++, the string is an array of characters. In case of C#, strings are objects of the built-in string data type. Thus, a string is a reference type.

2. Select the namespace in which string class is built?

- a) System.Text
- b) System.Net
- c) System.IO
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

3. Select the interfaces defined by the string class?

- a) IComparable
- b) IComparable<string>
- c) ICloneable
- d) All of the mentioned

View Answer

Answer: d

Explanation: None.

4. Choose the constructor type used to build strings from character array:

- a) public String(value)
- b) public String(char[] value, int startIndex, int length)
- c) public String(char[])
- d) all of the mentioned

View Answer

Answer: b

Explanation: public String(char[] value) – This form of constructor constructs a string that contains characters in value

public String(char[] value, int startIndex, int length) -The second form uses length characters from value, beginning at the index specified by startIndex.

5. Select the operators used for checking the equality in strings:

- a) !=
- b) >
- c) <
- d) >=

View Answer

Answer: a

Explanation: None.

a) Comparison is case and culture sensitive

- b) Two strings A and B are compared with each other
 - c) Output is : >0 for (A > B), <0 for (A < B) else '0' for (A=B)
 - d) All of the mentioned
- View Answer

Answer: d

Explanation: Compares the string referred to by strA with strB. Returns greater than zero if strA is greater than strB, less than zero if strA is less than strB, and zero if strA and strB are equal. The comparison is case and culture-sensitive.

- a) Hello c Sharp
 - b) HellocSharp
 - c) Compile time error
 - d) Hello
- View Answer

Answer: a

Explanation: Here '+' operator works as concatenation for strings.

Output :

Hello c Sharp

8. Which of these operators can be used to concatenate two or more String objects?

- a) +
- b) +=
- c) &
- d) ||

View Answer

Answer: a

Explanation: string s1 = "Hello" + " I " + "Love" + " ComputerScience ";

Console.WriteLine(s1);

Output :

advertisement

Hello I Love ComputerScience.

- a) Comparison begins at strA[indexA] and strB[indexB] and runs for length of characters
 - b) Returns output > 0 for strA > strB else < 0 for strA < strB else if strA = str B output is 0
 - c) Comparison is culture sensitive and if ignore case is true, comparison ignores case differences
 - d) All of the mentioned
- View Answer

Answer: d

Explanation: Compares portions of the strings referred to by strA and strB. The comparison begins at strA[indexA] and strB[indexB] and runs for length characters. Returns greater than zero if strA is greater than strB, less than zero if strA is less than strB, and zero if strA and strB are equal. If ignoreCase is true, the comparison ignores case differences. Otherwise, case differences matter. The comparison is culture-sensitive.

- a) method returns a string
 - b) string str1 is concatenated to the end of str0
 - c) can be used to concatenate any number of strings
 - d) all of the mentioned
- View Answer

Answer: d

Explanation: This method returns a string that contains str1 concatenated to the end of str0. Another form of Concat(), shown here, concatenates three strings:

public static string Concat(string str0, string str1, string str2). Hence, any number of strings can be concatenated using this method.

11. Choose the base class for string() method :

- a) System.Array
- b) System.char
- c) System.String
- d) None of the mentioned

View Answer

Answer: c

Explanation: String is an alias for the predefined "System.string" class from which most of the string() methods are derived.

12. Did method use to remove whitespace from the string?

- a) Split()
- b) Substring()
- c) Trim()
- d) TrimStart()

View Answer

Answer: c

Explanation: Perfectly removes a whitespace from string whereas TrimStart() removes a string of characters from the end of the string.

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C# Questions & Answers – String Formatting – 1

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

- a) Equal
Unequal
b) Unequal
Equal
c) Equal
Equal
d) Unequal
Unequal
View Answer

Answer: d

Explanation: In the first comparison it is being checked if two strings are equal or not, but in the second comparison it is checked if two string references are equal or not. Also the length of the string and characters match is tested for the equality of strings.

Output :

Unequal
Unequal

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

- a) Ixgo
b) Ixig
c) Ixigo

d) Ixg

[View Answer](#)

Answer: c

Explanation: Insert() the built in method inserts characters at specified position mentioned with index positions.

Output:

Ixigo

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

- a) a
- b) b
- c) c
- d) abc

[View Answer](#)

Answer: d

Explanation: String(chars) is a constructor of class string, it initializes string s with the values stored in character array chars, So s contains "abc".

Output :

abc

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

- a) 4 0
- b) 3 0
- c) 3 4

d) 4 3

View Answer

Answer: d

Explanation: None.

Output :

4 3

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

a) True

b) False

c) String associated with obj1

d) Compile time error

View Answer

Answer: c

Explanation: ToString() is the method of class Object, since it is the superclass of every class, every object has this method. ToString() returns the string associated with the calling object.

Output :

ConsoleApplication19.A

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

6. Which of these constructors is used to create an empty String object?

a) String()

- b) String(void)
- c) String(0)
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

7. Which of these method of class String is used to obtain length of String object?

- a) get()
- b) Sizeof()
- c) Lengthof()
- d) Length()

View Answer

Answer: d

Explanation: Method Length() of string class is used to get the length of the object which invoked the method Length().

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

8. Choose the base class for string() method :

- a) System.Array
- b) System.char
- c) System.String
- d) None of the mentioned

View Answer

Answer: c

Explanation: String is an alias for the predefined “System.string” class from which most of the string() methods are derived.

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

- a) True
- b) False
- c) 1
- d) Run time error

View Answer

Answer: b

Explanation: StartsWith() method is case sensitive “hello” and “Hello” are treated differently, hence false is stored in var.

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

10. What is the value returned by the function CompareTo() if the invoking string is less than the string compared?

- a) zero
- b) value less than zero
- c) value greater than zero
- d) none of the mentioned

View Answer

Answer: b

Explanation: CompareTo() function returns zero when both the strings are equal, it returns a value less than zero if the invoking string is less than the other string being compared and value greater than zero when invoking string is greater than the string compared to.

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

- a) True
 - b) False
 - c) 0
 - d) Compile time error
- View Answer

Answer: b

Explanation: Equals() compares the content of two strings. StringBuilder class supports many methods which are useful for manipulating dynamic strings.

Output :False

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

12. Which of these methods of class String is used to check whether a given string starts with a particular substring or not?
- a) StartsWith()
 - b) EndsWith()
 - c) Starts()
 - d) Ends()
- View Answer

Answer: a

Explanation: The StartsWith() determines whether a substring exists at the beginning of the string.

C# Questions & Answers – String Formatting – 2

1. Which of these methods of class String is used to extract a substring from a String object?

- a) substring()
- b) Substring()
- c) SubString()
- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

- a) one
 - b) two
 - c) one two
 - d) two one
- View Answer

Answer: c

Explanation: Two strings can be concatenated using Concat() method.

Output:

```
one two
```

3. Which of these methods of class String is used to remove leading and trailing whitespaces?

- a) startsWith()
- b) TrimEnd()
- c) Trim()
- d) TrimStart()

View Answer

Answer: c

Explanation: Removes white space from the string.

- a) " Hello World "
- b) "HelloWorld"
- c) "Hello World"
- d) "Hello"

View Answer

Answer: c

Explanation: Trim() method is used to remove leading and trailing whitespaces in a string.

Output:

```
"Hello World"
```

- a) CSHAP
 - b) CSHP
 - c) CSHALP
 - d) CSHP
- View Answer

Answer: c

Explanation: Replace() method replaces all occurrences of a single character in invoking strings with another character. s1.Replace('H','L') replaces every occurrence of 'H' in CSHARP by 'L', giving CSHALP.

Output:

CSHALP

- a) Hello
 - b) Hell
 - c) H
 - d) Hello World
- View Answer

Answer: b
Explanation: None.
Output:

advertisement

Hell

- a) 9 5
 - b) 4 9
 - c) 9 0
 - d) 9 4
- View Answer

Answer: b
Explanation: None.
Output:

4 9

- a) true
 - b) false
 - c) 0
 - d) 1
- View Answer

Answer: b
Explanation: StartsWith() method is case sensitive “t” and “T” are treated differently, hence false is stored in a.
Output:

false

- a) zx
 - b) xy
 - c) zy
 - d) yz
- View Answer

Answer: c
Explanation: compareTo() function returns zero when both the strings are equal. It returns a value less than zero if the invoking string is less than the other string being compared and a value greater than zero if the invoking string is greater than the string compared to 4
Output:

zy

- a) a
- b) b
- c) ab
- d) abc

View Answer

Answer = d

Explanation: None.

Output:

abc

a) 3 5 7

b) 4 5 6

c) 3 9 6

d) 2 4 6

View Answer

Answer: c

Explanation: `indexOf('l')` and `lastIndexOf('o')` are pre-defined function which are used to get the index of first and last occurrence of the character pointed by l and c respectively in the given array.

Output:

3, 9, 6

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C# Questions & Answers – Basic Operation on Strings

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0; i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

1. Which of the following string() method are used to compare two strings with each other?

- a) CopyTo()
- b) Copy()
- c) Compare()
- d) CompareTo()

View Answer

Answer: b

Explanation: Creates a new string by copying one string to another.

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0; i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

2. Choose the base class for string() method :

- a) System.Array
- b) System.char
- c) System.String
- d) None of the mentioned

View Answer

Answer: c

Explanation: String is an alias for the predefined "System.string" class from which most of the string() methods are derived.

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0; i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

- a) Cshar
- b) CsharpP
- c) Csharp
- d) Cshrap

View Answer

Answer: c

Explanation: Insertion of character 'a' at position '3' using insert() which returns a new string with a substring inserted at a specified location.

Output:

Csharp

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0; i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

4. Which of the following statement is correct about a string in C#.NET?

- a) The System.Array class is used to represent a string
- b) A string has a zero-based index
- c) A number cannot be represented in the form of a string
- d) A string is mutable because it can be modified once it has been created

View Answer

Answer: b

Explanation: None.

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0; i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

- a) Equal
Unequal
b) Unequal
Equal
c) Equal
Equal
d) Unequal
Unequal
View Answer

Answer: d

Explanation: In first comparison it is being checked either two strings are equal or not but in second comparison it is checked whether two references are equal or not.

Output:

```
Unequal
Unequal
```

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0; i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

- a) HelloI LoveComputerScience
b) Hello I Love ComputerScience
c) Compile time error
d) Hello
View Answer

Answer: b

Explanation: Here '+' defined operator works as concatenation for strings.

Output :

Hello I Love ComputerScience.

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

7. Correct way to find if contents of two strings are equal ?

- a) if(s1 = s2)
- b) if(s1 != s2)
- c) if(strcmp (s1 ,s2))
- d) if (s1 is s2)

View Answer

Answer: c

Explanation: "==" operator used to compare length of two strings and strcmp() is the inbuilt method derived from string class.

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

8. Which of the following statements are correct?

- a) String is value type
- b) String literals can contain any character literal including escape sequences
- c) The equality operators are defined to compare values of string objects as well as references
- d) All of the mentioned

View Answer

Answer: b

Explanation: None

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

9. Which of these operators can be used to concatenate two or more String objects?

- a) +
- b) +=
- c) &
- d) ||

View Answer

Answer: a

Explanation:

```
string s1 = "Hello"+ " I " + "Love" + " ComputerScience ";
Console.WriteLine(s1);
Hello I Love ComputerScience.
```

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

10. The Method use to remove white space from string?

- a) Split()
- b) Substring()
- c) Trim()
- d) TrimStart()

View Answer

Answer: c

Explanation: Perfectly removes a whitespace from string whereas TrimStart() removes a string of characters from the end of the string.

C# Program to Illustrate Bitwise Operations

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Object Oriented Programming Questions and Answers – IO Class

1. What is the use of IO class?

- a) To handle all the input operations
- b) To handle all the output operations
- c) To handle all the input and output operations
- d) To handle all the input and output to the standard input

View Answer

Answer: c

Explanation: The IO class provides functions that can be used to handle input and output operations. All the inputs from standard input and standard output, and also from the files can be handled. This gives flexibility to make the programs more user friendly.

2. IO class provides input and output through _____

- a) Data streams
- b) Serialization
- c) File system
- d) Data streams, serialization and file system

View Answer

Answer: d

Explanation: The IO classes are made such that those can support the input and output from any type of source or destination. The input can be taken from system file and standard input and also some special devices if conned. Same is case to show the output.

3. Which among the following class contains the methods to access character based console device?

- a) Console
- b) File
- c) Device
- d) Pipe

View Answer

Answer: a

Explanation: The Console class contains the methods to access the character based devices. The devices which can stream the data as character set. All those devices can be made use of by using the methods of class Console.

4. File class is _____

- a) An abstract of file representation only
- b) An abstract of path names only
- c) An abstract which can be used to represent path names or file
- d) An abstract which can represent a file in any format

View Answer

Answer: c

Explanation: The File class is made to operate with the files. The file can be of any type. All the input and output operations that have to be performed on a file can be done using File class object.

5. What is a FileDescriptor?

- a) A handle for machine specific structure of an open file
- b) A handle for program specific structure of an open file
- c) A handle for compiler specific structure of an open file
- d) A handle for representing device files structure

View Answer

Answer: a

Explanation: The machine specific structure of an open file have to be handled in some special ways. FileDescriptor class can handle those files.

The FileDescriptor can also handle open socket, another source, sink of bytes.

6. FileInputStream _____

- a) Gets the input stream from any device file
- b) Gets the input stream from any open socket
- c) Gets the input stream from any cache
- d) Gets the input stream from any open file only

View Answer

Answer: d

Explanation: The most specific answer is that the FileInputStream can only be used for the opened files. The class can work only for the file type. No socket or another source are allowed to be accessed.

7. What does FilePermission class do?

- a) This class is used to give permission rights to a file
- b) This class is used to restrict use of permissions
- c) This class is used to represent device access permissions
- d) This class is used to represent file access permissions

View Answer

Answer: d

Explanation: The FilePermission can't get access to the device access permissions. The Permission is given to a file when it is created or otherwise when a privileged user changes it. Then these permission rights can be accessed using the FilePermission class.

8. Which class among the following makes incorrect assumptions?

- a) LineNumberInputStream
- b) LineNumberReader
- c) LineReader
- d) LineBuffer

View Answer

Answer: a

Explanation: The LineNumberInputStream class makes false assumptions. The false assumption is that it assumes, all the byte data is a character. Which is actually not the case, instead the character have one byte memory space.

9. Reader class is _____

- a) Used to read from files
- b) Abstract class to read character streams
- c) Abstract class to input character streams
- d) Used to take input from standard input stream

View Answer

Answer: b

Explanation: The Reader class is an abstract class which can be used to read characters stream. It can't be used for any kind of input. It can just read the existing data.

10. Which class can handle IO class interrupt?

- a) ExceptionIO
- b) InterruptedIO
- c) InterruptedIOException
- d) IOInterruptException

View Answer

Answer: c

Explanation: The only class which handles the IO class interrupts is InterruptedIOException class. This class is specially provided to handle any case that involves the execution interrupt.

11. StringReader handles _____

- a) Any character stream
- b) A character stream whose source is an array
- c) A character stream whose source is character array
- d) A character stream whose source is String only

View Answer

Answer: d

Explanation: The StringReader can only work with the string type data. Even if a character array is given, it might produce some errors in code. Hence only the string values can be handled properly.

12. Which exception handler can be used when character encoding is not supported?

- a) UnsupportedOperationException
- b) UnsupportedEncodingException
- c) SupportException
- d) EncodingException

View Answer

Answer: b

Explanation: The encoding that is unsupported in a system can be handled. The exception handler is UnsupportedEncodingException class. An object of this class can be created which will catch the exception and handle it.

13. PushBackReader allows the streams to be pushed back to the stream.

- a) True
- b) False

View Answer

Answer: a

Explanation: The PushBackReader allows the character streams handling. The main feature is that the stream can be pushed back to the stream. This is used in special cases of handling input stream.

14. RandomAccessFile can be used to _____

- a) Read from a random access file
- b) Write to a random access file
- c) Read and write to a random access file
- d) Restricts read and write to a random access file

View Answer

Answer: c

Explanation: The RandomAccessFile class instance can be created to handle input and output operations to a random access file. It first checks the permissions on the file and then any required operation can be done on a random access file. Comparatively faster than other files access.

15. Which among the following is a serialization descriptor for any class?

- a) StreamClass
- b) ObjectOutputStream
- c) ObjectStream
- d) StreamObjectClass

View Answer

Answer: b

Explanation: The ObjectOutputStream object can be created to handle serializations. The class is provided specially for the serializations. It is descriptor like we have a file descriptor to handle/access files.